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NATURAL HISTORY

THE GLOBE, OF MAN, OF BEASTS, BIRDS, FISHES,
REPTILES, INSECTS AND PLANTS.

FROM
THE WRITINGS OF BUFFON, CUVIER AND OTHER
EMINENT NATURALISTS.



A NEW EDITION.

WITH MODERN IMPROVEMENTS, AND FIVE HUNDRED
ENGRAVINGS.

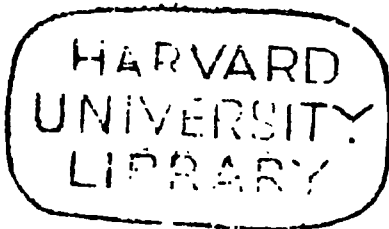
BOSTON:
GRAY AND BOWEN.

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NATURAL HISTORY

OF

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FISHES, REPTILES, INSECTS AND PLANTS.**

FROM

**THE WRITINGS OF BUFFON, CUVIER, LACEPEDE,
AND OTHER EMINENT NATURALISTS.**

**EDITED BY JOHN WRIGHT,
MEMBER OF THE ZOOLOGICAL SOCIETY OF LONDON.**

**A NEW EDITION,
WITH IMPROVEMENTS FROM GEOFFREY, GRIFFITH, RICHARD-
SON, LEWIS AND CLARK, LONG, WILSON, AND OTHERS.**

WITH FIVE HUNDRED ENGRAVINGS.

N FIVE VOLUMES.

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NATURAL HISTORY.

CHAP. XIII.

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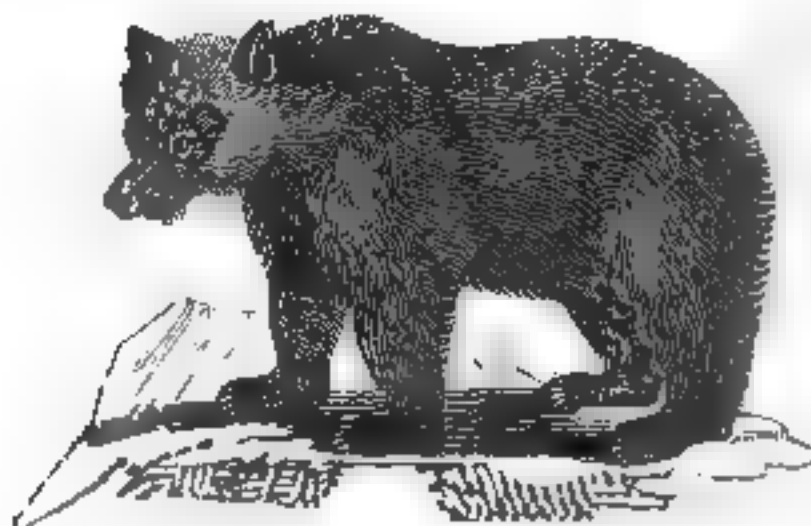
THE BEAR.

THERE is no animal more generally known than the Bear, and yet there is none concerning which more differences and contradictions have been found among the writers of natural history. These uncertainties have arisen from their not distinguishing properly the different species. The land Bear must be distinguished from the sea Bear, which is commonly known by the name of the white or Greenland Bear; and the land Bears must again be divided into two species, the brown and the black. There are also white land Bears found in Tartary, Russia, &c. which though they resemble the sea Bear in colour, differ from it, however, in every other particular. It is not the rigour of the climate that makes them white in winter, like the hares and ermines; they are brought forth white, and remain so all their lives. *There are also found Bears whose*

skins are a mixture of brown and black, which denotes a intermediate species between the white land Bear and the brown black Bear.

THE BROWN BEAR.

WE meet with the Brown Bear very frequently, and with the black Bear very rarely, on the Alps. In the forests of the northern countries of Europe and America, on the contrary, the black Bear is very common. The latter is both fierce and carnivorous; the former is only fierce, and constantly refuses to eat flesh.



The Bear is not only a savage, but a solitary animal; he takes refuge in the most unfrequented parts, and the most dangerous precipices of uninhabited mountains. He chooses his den in the most gloomy parts of the forest, in some cavern that has been hollowed by time, or in the hollow of some old enormous tree. Thither he retires alone, and passes a part of the winter without provisions, or without ever stirring abroad. He is not, however, entirely deprived of sensation, like the dormouse or the marmot, but seems rather to subsist upon the exuberance of his former flesh, and only feels the calls of appetite when the fat he had acquired in summer begins to be considerably waste.

When this happens, which we are told it generally does

at the expiration of forty or fifty days, the male forsakes his den ; but the female remains confined for four months, by which time she has brought forth her young. That the latter should not only be able to subsist, but even to nurse their offspring, without receiving themselves any food for such a length of time, is highly improbable. When with young, however, it is allowed that they are exceedingly fat, as also that, being covered with a very thick coat, sleeping the greatest part of their time, and giving themselves no exercise or motion, they must necessarily lose very little by perspiration.

Though the males of the brown species devour their new-born little ones, when they find an opportunity for it, yet the females seem, on the contrary, to love them with a ferocious distraction. When once they have brought forth, their fury is more violent, as well as more dangerous, than that of the males. Before the young leave the womb, their formation is perfect; and if either the fœtus of the Bear, or the Bear when newly born, appears at the first glance unformed, it is merely because there is a want of proportion in the body and members even of the grown Bear, and because, which is well known to be the case in all animals, the fœtus, or the new-born animal, is always more disproportioned than the grown animal.

The voice of the Bear is a kind of growl, a harsh murmur, which, when enraged especially, is heightened by a clashing of the teeth. Highly susceptible of anger, that anger is always furious, and often capricious. However mild he may appear before his master, and even obedient when tamed, he ought still to be distrusted, still treated with circumspection; nor, on any account, must he be struck on the tip of the nose, or touched on the parts of generation.

This animal is capable of some degree of instruction.

There are few who have not seen him stand on his hind legs, or with these dance in rude and awkward measure to tunes either sung or played on an instrument. But even in thus tutoring him, it is necessary, in order to succeed, that the animal should be taken young, and held in constraint ever after. The Bear which has passed his youth, is not to be tamed, nor even held in awe, and show himself, if not actively intrepid, at least fearless of danger.

The wild Bear turns not from his path, nor offers to shun the sight of man; and yet, it is said, by a certain whistle he may be surprised, and so far charmed as to stop, and stand upon his hind feet. This is the time to shoot, or by one method or other to destroy him; for, when only wounded in an attack, he darts with fury at his foe, and, clasping him with his fore paws, is sure to stifle or strangle him, unless immediate assistance be given.

The Bear enjoys the senses of seeing, hearing, and feeling, in great perfection; and yet, compared with the size of his body, his eye is very small; his ears are also short; his skin is coarse; and his hair very thick. His smell is exquisite; more so, perhaps, than that of any other animal, the internal surface of his nose being very extensive, and excellently calculated to receive the impression of smells. He strikes with his paws as a man strikes with his fists; but in whatever particulars he may bear a rude kind of resemblance to the human species, he is only rendered the more deformed by them; nor do they give him the smallest superiority over other animals.

In no part of the world, perhaps, are Bears more numerous than at Kamstchatka, and no where are they so gentle. They rove about the plains in large droves, yet they never disturb the women and girls, who gather roots and herbs, or turf for fuel, in the very midst of them; nay

they will even eat out of their hands. Their mildness, however, does not preserve them from being persecuted by mankind. For this ingratitude man has, indeed, some excuse, in the great utility of the spoils of the Bear. The Kamstchadale would find it much more difficult to subsist, did not the Bear supply him with many necessary articles. Beds, coverlets, caps, gloves, shoe-soles, and collars for sledge dogs, are made of the skin; the fat is savoury and nutritious as food, and when melted is used as oil; the flesh is highly esteemed; the shoulder blades are converted into sickles for cutting grass; the intestines, when prepared, are worn by the women as masks, to protect the face from the sun, and are also converted into excellent panes for windows; and the heads and haunches are hung on trees, around the dwellings, as ornaments, or as trophies. To the Bear the Kamstchadale is likewise indebted for his scanty knowledge of physic and surgery, which he acquires by noticing what herbs the animal applies to his wounds, or eats when he is labouring under disease; and to the Bear, too, he owes all his ideas of dancing; his Bear dance, as he calls it, being nothing more than a close imitation of his shaggy quadruped instructors.

THE WHITE, OR POLAR BEAR.

UNLIKE his Kamstchatkan brother, the Polar Bear is distinguished by his tremendous ferocity. In size, too, it far surpasses him, as it sometimes reaches the length of twelve feet. Its head and neck are more lengthened, and the body is longer in proportion to its bulk. In the Polar seas it may literally be said to swarm. There, it is seen not only on the land and fixed ice, but on floating ice several leagues out at sea. In the latter manner White Bears are sometimes conveyed to Iceland, where they are so much dreaded by the inhabitants that a crusade is im-

mediately commenced against them. At sea, the food of this animal is fish, seals, and the carcasses of whales; on land, it preys upon deer and other animals, and will devour various kinds of berries. In winter, it beds itself deep under the snow or eminences of ice, and awaits, in a torpid state, the return of the sun. It suffers exceedingly when exposed to great heat.



Of the ferocity of the Polar Bear, Barentz gives a striking proof. In Nova Zembla they attacked his sail and carried them off in their mouths with the utmost facility and devoured them in sight of their comrades. A year ago some sailors in a boat fired at and wounded one. In spite of his receiving another shot, he swam after the boat, and endeavoured to climb into it. One of his legs was cut off with a hatchet, but he still pursued the aggressors to the ship. Numerous additional wounds did not check his fury; mutilated as he was, he ascended the ship's side, drove the sailors into the shrouds, and was

lowing them thither, when a mortal shot stretched him dead on the deck.

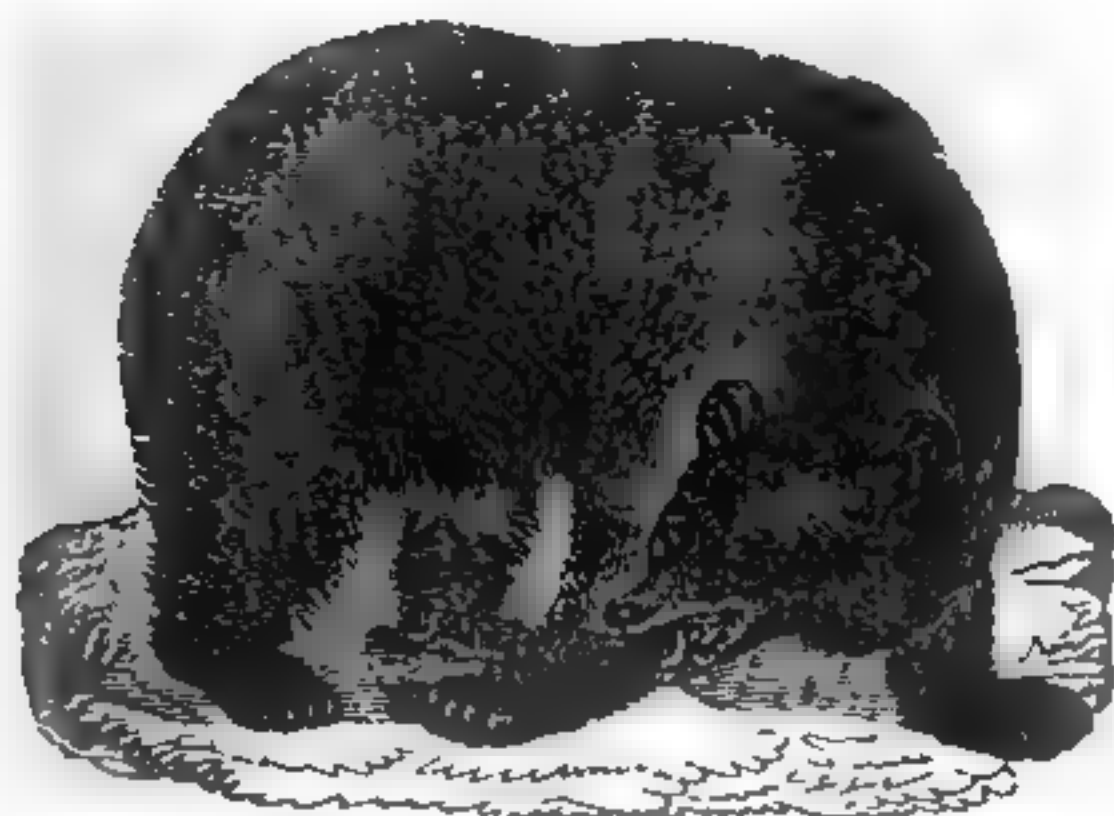
But even this formidable animal is not without its good qualities. It is a faithful mate and an affectionate parent. Hearne tells us that, at certain seasons of the year, the males are so much attached to their mates, that he has often seen one of them, on a female being killed, come and put his paws over her, and rather suffer himself to be shot than abandon her.

“While the Carcase frigate, which went out some years ago to make discoveries towards the North Pole, was locked in the ice, early one morning the man at the mast head gave notice that three Bears were making their way very fast over the frozen ocean, and were directing their course towards the ship. They had, no doubt, been invited by the scent of some blubber of a walrus that the crew had killed a few days before ; which had been set on fire, and was burning on the ice at the time of their approach. They proved to be a she Bear and her two Cubs ; but the Cubs were nearly as large as the dam. They ran eagerly to the fire, and drew out of the flames part of the flesh of the walrus that remained unconsumed, and ate it voraciously. The crew from the ship threw upon the ice great lumps of the flesh of the sea horse, which they had still remaining. These the old Bear fetched away singly, laid every lump before her Cubs as she brought it, and dividing it, gave to each a share, reserving but a small portion to herself. As she was fetching away the last piece, the sailors levelled their muskets at the Cubs, and shot them both dead ; and in her retreat they wounded the dam, but not mortally. It would have drawn tears of pity from any but unfeeling minds, to have marked the affectionate concern expressed by this poor beast in the last moments of her expiring young ones. Though she was herself

dreadfully wounded, and could but just crawl to the place where they lay, she carried the lump of flesh she had fetched away, as she had done others before, tore it in pieces, and laid it before them; and when she saw that they refused to eat, she laid her paws first upon one and then upon the other, and endeavoured to raise them up; all this while it was pitiful to hear her moan. When she found she could not stir them, she went off, and when she had got to some distance, she looked back and moaned. Finding this to no purpose, she returned, and, smelling round them, began to lick their wounds. She went off a second time as before; and, having crawled a few paces, looked again behind her, and for some time stood moaning. But still her Cubs not rising to follow her, she returned to them again; and, with signs of inexpressible fondness, went round, pawing them and moaning. Finding at last that they were cold and lifeless, she raised her head towards the ship, and uttered a growl of despair, which the murderers returned with a volley of musket balls. She fell between her Cubs, and died licking their wounds."

Mr. Scoresby mentions a singular circumstance with respect to a part of this animal. "The liver, I may observe, as a curious fact (says he), is hurtful and even deleterious; while the flesh and liver of the seal, on which it chiefly feeds, are nourishing and palatable. Sailors who have inadvertently eaten the liver of Bears, have almost always been sick after it: some have actually died; and the effects on others has been to cause the skin to peel off their bodies. This is, perhaps, almost the only instance known of any part of the flesh of a quadruped proving unwholesome."

THE AMERICAN BLACK BEAR.*



THIS animal is found, in considerable numbers, in the northern districts of America. In size and form he approaches nearest to the Brown Bear; but his colour is a uniform shining jet black, except on the muzzle, where it is fawn coloured; on the lips and sides of the mouth it is

* The *Cinnamon Bear* of the fur traders, is considered by the Indians to be an accidental variety of this species, and they are borne out in this opinion by the quality of the fur, which is equally fine with that of the Black Bear. The *Yellow Bear of Carolina* is also referred by Cuvier to this species, as is likewise the *Ours Gulaire* of M. Geoffroy, which has a white throat. The white markings on the throat of the animal mentioned by the latter author, are perhaps analogous to the white collar which many of the European Brown Bears exhibit when young. Captain Cartwright remarks that the cubs of the Black Bear on the Labrador Coast are often marked with black rings round the neck; and Pennant notices the same thing of the Bears of Hudson's Bay.—*Richardson*.

almost gray. The hair, except on the muzzle, is long and straight, and is less shaggy than in most other species. The forehead has a slight elevation, and the muzzle is elongated, and somewhat flattened above. The young ones, however, are first of a bright ash colour, which gradually changes into a deep brown, and ends by becoming a deep black.

The American Black Bear lives a solitary life in forests and uncultivated deserts, and subsists on fruits, and on the young shoots and roots of vegetables. Of honey he is exceedingly fond, and, as he is a most expert climber, he scales the loftiest trees in search of it. Fish, too, he delights in, and is often found in quest of it on the borders of lakes and on the sea-shore. When these resources fail he will attack small quadrupeds, and even animals of some magnitude. As, indeed, is usual in such cases, the love of flesh in him grows with the use of it.

As the fur is of some value, the Indians are assiduous in the chase of the creature which produces it. "About the end of December, from the abundance of fruits they find in Louisiana and the neighbouring countries, the Bears become so fat and lazy that they can scarcely run. At this time they are hunted by the American Indians. The nature of the chase is generally this: the Bear chiefly adopts for his retreat the hollow trunk of an old cypress tree, into which he climbs, and then descends into the cavity from above. The hunter, whose business it is to watch him into this retreat, climbs a neighbouring tree, and seats himself opposite to the hole. In one hand he holds his gun, and in the other a torch, which he darts into the cavity. Frantic with rage and terror, the Bear makes a spring from his station; but the hunter seizes the instant of his appearance, and shoots him.

"The pursuit of these animals is a matter of the first

importance to some of the Indian tribes, and is never undertaken without much ceremony. A principal warrior gives a general invitation to all the hunters. This is followed by a strict fast of eight days, in which they totally abstain from food ; but during which the day is passed in continual song. This is done to invoke the spirits of the woods to direct the hunters to the places where there are abundance of Bears. They even cut the flesh in divers parts of their bodies, to render the spirits more propitious. They also address themselves to the manes of the beasts slain in the preceding chases, and implore these to direct them in their dreams to an abundance of game. The chief of the hunt now gives a great feast, at which no one dares to appear without first bathing. At this entertainment, contrary to their usual custom, they eat with great moderation. The master of the feast touches nothing ; but is employed in relating to the guests ancient tales of feasts in former chases ; and fresh invocations to the manes of the deceased Bears conclude the whole.

“ They then sally forth, equipped as if for war, and painted black ; and they proceed on their way in a direct line, not allowing rivers, marshes, or any other impediment to stop their course, and driving before them all the beasts they find. When they arrive at the hunting ground, they surround as large a space as they can ; and then contract their circle, searching at the same time every hollow tree, and every place capable of being the retreat of a Bear : and they continue the same practice till the chase is expired.

“ As soon as a Bear is killed, a hunter puts into his mouth a lighted pipe of tobacco, and blowing into it, fills the throat with the smoke, conjuring the spirit of the animal not to resent what they are about to do to its body, or to render their *future chases unsuccessful*. As the beast

makes no reply, they cut out the string of the tongue, and throw it into the fire. If it crackle and shrivel up (which it is almost sure to do), they accept this as a good omen; if not, they consider that the spirit of the beast is not appeased, and that the chase of the next year will be unfortunate."

In the Tower Menagerie of London there is a very tame and playful American Bear, which was presented to it in 1824. He was originally in the same den with the hyæna, and, except at feeding times, was on good terms with his companion. A piece of meat, however, would occasionally produce a temporary dissension between them; in which the hyæna, though the smallest of the two, had usually the upper hand. On such occasions, the defeated Bear would moan most piteously, in a tone somewhat like a sheep bleating, while the hyæna devoured the remainder of his dinner.*

* When our forefathers first settled in America, Bears were common in all parts of the country along the Atlantic. Many adventures with them took place, some of which are recorded in the histories of the times. The following is said to have occurred at a later period.

Some years since, when the western part of New York was in a state of nature, and wolves and bears were not afraid of being seen, some enterprising pilgrim had erected, and put in operation, a saw mill, on the banks of the Genesee. One day as he was sitting on the log, eating his bread and cheese, a large black Bear came from the woods towards the mill. The man, leaving his luncheon on the log, made a spring, and seated himself on a beam above; when the Bear, mounting the log, sat down with his rump towards the saw which was in operation, and commenced his appetite on the man's dinner. After a little while, the saw progressed enough to interfere with the feathers on Bruin's back, and he hitched along a little and kept on eating. Again the saw came up, and scratched a little faster. The Bear then whirled about, and throwing his paws around the saw, *held on till he was mangled through and through, when he rolled over and fell through into the flood, and bled to death.*

BARREN GROUND BEAR OF AMERICA.

THE barren lands lying to the northward and eastward of Great Slave Lake, and extending to the Arctic Sea, are frequented by a species of Bear, which differs from the American black Bear in its greater size, profile, physiognomy, longer soles, and tail; and from the grizzly bear also, in colour, and the comparative smallness of its claws. Its greatest affinity is with the brown Bear of Norway; but its identity with that species has not been established by actual comparison. It frequents the sea-coast in the Autumn, in considerable numbers, for the purpose of feeding on fish.

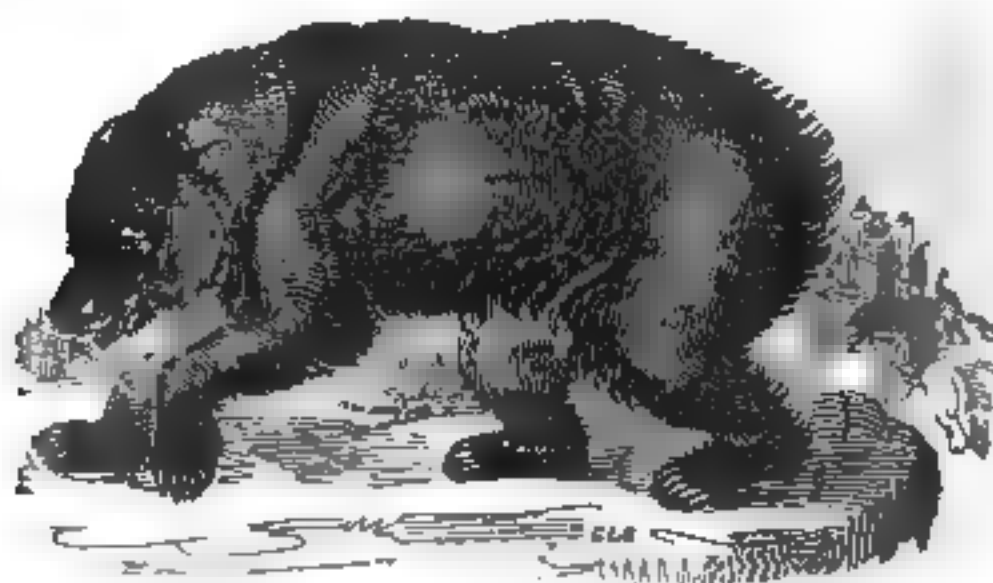
The general colour of this Bear is a dusky, or yellowish brown, but the shoulders and flanks are sometimes covered with long hair, which is very pale toward the tips. The Indians often term them "White Bears." They dread them very much, and caution travellers against them. Captain Franklin mentions an old Indian named Keskarrah, who was seated at the door of his tent, when a large Bear came to the opposite bank, and remained for some time apparently surveying him. Keskarrah, considering himself to be in great danger, and having no one to assist him but his aged wife, made a speech to the following effect. "Oh Bear! I never did you any harm; I have always had the highest respect for you and your relations, and never killed any of them except through necessity. Go away, good Bear, and let me alone, and I promise not to molest you." The Bear walked off; and the old man supposed that he owed his safety to his eloquence.

Richardson.

THE GRIZZLY BEAR.

LIKE the American black Bear, this animal inhabits the northern part of America; but, unlike him, he is, perhaps, the most formidable of all Bears in magnitude and ferocity.

He averages twice the bulk of the black Bear, to which, however, he bears some resemblance in his slightly elevated forehead, and narrow, flattened elongated muzzle. His canine teeth are of great size and power. The feet are enormously large; the breadth of the fore foot exceeding nine inches, and the length of the hind foot exclusive of the talons, being eleven inches and three quarters, and its breadth seven inches. The talons sometimes measure



more than six inches. He is, accordingly, admirably adapted for digging up the ground, but is unable to climb trees, in which latter respect he differs wholly from every other species. The colour of his hair varies to almost an indefinite extent, between all the intermediate shades of a light gray and a black brown; the latter tinge, however, being that which predominates. It is always in some degree grizzled, by intermixture of grayish hairs, only the brown hairs being tipped with gray. The hair itself is, in general, longer, finer, and more exuberant than that of the black Bear.

The neighbourhood of the Rocky Mountains is one of the principal haunts of this animal. There, amidst wooded plains, and tangled copses of bough and underwood, he *reigns as much the monarch, as the lion is of the sandy*

es of Africa. Even the bison cannot withstand his
ck. Such is his muscular strength, that he will drag
ponderous carcass of the animal to a convenient spot,
re he digs a pit for its reception. The Indians regard
with the utmost terror. His extreme tenacity of life
ers him still more dangerous; for he can endure re-
ed wounds which would be instantaneously mortal to
r beasts, and, in that state, can rapidly pursue his ene-

So that the hunter who fails to shoot him through
rain, is placed in a most perilous situation.

One evening the men in the hindmost of one of Lewis
Clark's canoes perceived one of these Bears lying in
open ground about three hundred paces from the river;
six of them, who were all good hunters, went to attack

Concealing themselves by a small eminence, they
able to approach within forty paces unperceived;
of the hunters now fired, and each lodged a ball in his
; two of which passed directly through the lungs.

Bear sprang up and ran furiously with open mouth
at them; two of the hunters, who had reserved their
gave him two additional wounds, and one breaking
houlder-blade, somewhat retarded his motions. Be-

they could again load their guns, he came so close on
; that they were obliged to run towards the river, and
re they had gained it the Bear had almost overtaken

Two men jumped into the canoe; the other four
rated, and concealing themselves among the willows,

as fast as they could load their pieces. Several times
Bear was struck, but each shot seemed only to direct
ury towards the hunter; at last, he pursued them so
ely that they threw aside their guns and pouches, and
ed from a perpendicular bank, twenty feet high, into

river. The Bear sprang after them, and was very near
hindmost man, when one of the hunters on the shore

shot him through the head, and finally killed him. When they dragged him on shore, they found that eight balls had passed through his body in different directions.

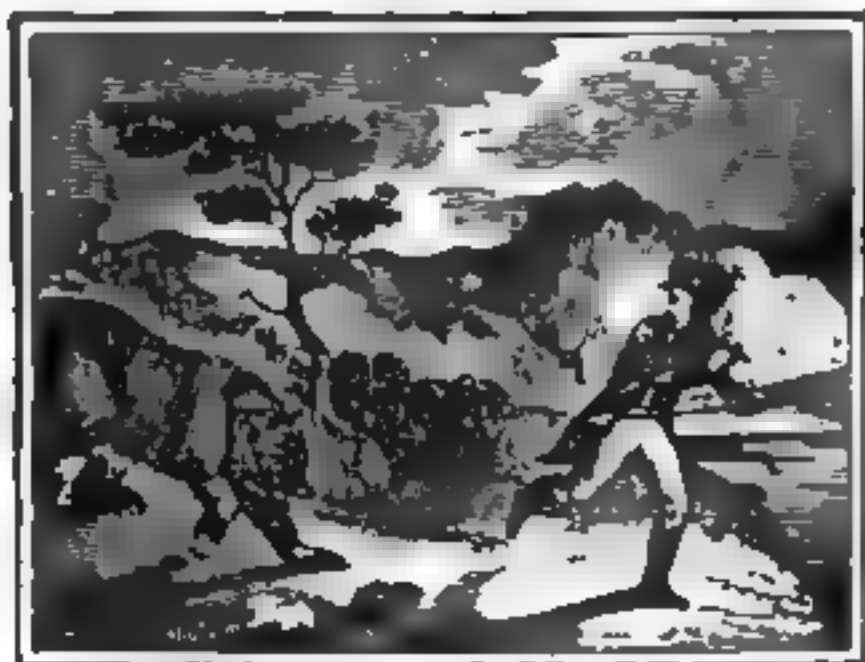
On another occasion, the same enterprising traveller met with the largest Bear of this species they had ever seen; when they fired he did not attempt to attack, but fled with a tremendous roar, and such was his tenacity of life, that although five balls had passed through the lungs and five other wounds were inflicted, he swam more than half across the river to a sand bar, and survived more than twenty minutes.

Mr. John Dougherty, a very experienced and respectable hunter, who accompanied Major Long's party during their expedition to the Rocky Mountains, several times very narrowly escaped from the Grizzly Bear. On one while hunting with another person on one of the upper tributaries of the Missouri, he heard the report of his companion's rifle, and when he looked round, beheld him at a short distance endeavouring to escape from one of the Bears, which he had wounded as it was coming towards him. Dougherty, forgetful of every thing but the preservation of his friend, hastened to call off the attention of the Bear, and arrived in rifle-shot distance just in time to effect his generous purpose. He discharged his ball at the animal, and was obliged in his turn to fly; his friend, relieved from immediate danger, prepared for another attack by charging his rifle, with which he again wounded the Bear, and saved Mr. D. from further peril. Neither received any injury from this encounter, in which the Bear was at length killed.

Mr. Dougherty, the hunter before mentioned, relates the following instance of the great muscular strength of the Grizzly Bear:—Having killed a Bison, and left the carcass for the purpose of procuring assistance to skin it

cut it up, he was very much surprised on his return to find that it had been dragged off, whole, to a considerable distance, by a Grizzly Bear, and had been placed in a pit, which the animal had dug with his claws for its reception.

Capt. Lewis, in one instance, narrowly escaped from a Grizzly Bear. He was walking near a river, when one of



these animals sprang suddenly toward him: the Captain fled to the river, and the Bear pursued. Here he turned round and faced the animal with a spear. The latter now thought it best to retreat, and ran away as fast as he could.

Richardson relates the following story of a Grizzly Bear. A party of voyagers, who had been employed all day in tracking a canoe up the Saskatchewan, had seated themselves in the twilight by a fire, and were busy in preparing their supper, when a large Grizzly Bear sprang over their canoe that was behind them, and seizing one of the party by the shoulder, carried him off. The rest fled in terror, with the exception of a man named Bourasso, who, grasping his gun, followed the Bear as it was retreating leisurely with its prey. He called to his unfortunate comrade that he was afraid of hitting him if he fired at the Bear, but the latter *entreated him to fire immediately, as the*

animal was squeezing him to death. On this, he took a deliberate aim, and discharged his piece into the body of the Bear, which instantly dropped its prey to pursue Bourasso. He escaped with difficulty, and the Bear retreated to a thicket, where it is supposed to have died. The man who was rescued, had his arm fractured, and was otherwise severely bitten by the Bear, but finally recovered.

The same author mentions a man now living, who was attacked by a Grizzly Bear, which sprang out of a thicket, and with one stroke of his paw completely scalped him, laying bare the skull, and bringing the skin of the forehead down over the eyes. Assistance coming up, the Bear made off without doing him farther injury, but the scalp not being replaced, the poor man has lost his sight, although he thinks that his eyes are uninjured.

A Grizzly Bear has now been for seventeen years an inhabitant of the Tower Menagerie, and is known by the name of Old Martin. He seems to have lost none of his original ferocity, and manifests no attachment to his keepers.

THE THIBET BEAR.

THE epithet prefixed to the name of this animal sufficiently indicates the country to which the creature belongs. The species, however, unless Cuvier and others are in error, is also to be found in Sumatra. It is particularly distinguished from the Malay and the large-lipped Bears by the thickness of its neck, and the flatness of its head. It has a compact body and heavy limbs, and its claws are little more than half as long as those of the other Indian Bears. The ears are very large. The muzzle is moderately thick, and somewhat lengthened; the upper part black, with a slightly reddish tint on the sides; the edges of the lips flesh coloured, and the hair smooth. From the *back part of the head*, however, the hair becomes shaggy.

is a gentle but sluggish animal, and feeds on bread, nuts, honey, or fat; but refuses roots, and the lean muscular parts of flesh. In general its motions are slow and languid; but when disturbed or irritated, it appears rather lively, and utters a kind of short abrupt roar.

THE BEAVER.



countries, as man is civilized and improved, the ranks of animals are depressed and degraded. reduced to servitude, or treated as rebels, all their ties are dissolved, and all their united talents rendered ineffectual. Their feeble arts quickly disappear; and all that remains but their solitary instincts, or those few habits which they receive from human education.

Beaver seems to be now the only remaining monument of that kind of intelligence in brutes, which, though infinitely inferior, as to its principle, to that of man, supplies, however, certain common projects, certain relative views, projects which, having for their basis society, and a common manner, suppose some particular method of understanding one another, and of acting in concert.

It is allowed, that the Beaver, far from having an absolute superiority over the other animals, seems, on the contrary, to be inferior to some of them as to its qualities merely

as an individual ; and this fact is confirmed by observing a young Beaver, which was sent to Paris from Canada at the beginning of the year 1758. It is an animal tolerant, mild, tranquil, and familiar, though rather, it would seem gloomy and melancholy. If we consider this animal, therefore, in its dispersed and solitary state, we shall find, as to internal qualities, it is not superior to other animals, that it has not more ingenuity than the dog, more sagacity than the elephant, or more cunning than the fox. It is rather remarkable for the singularities of its internal qualities. Of quadrupeds, the Beaver alone has a flat oval tail covered with scales, which serves as a rudder to direct its motions in the water. It is the only quadruped that has membranes between the toes on the hind feet, and at the same time none on the fore ones, which it uses as hands in carrying food to the mouth. It is the only one while it resembles a terrestrial animal in its fore paws, while it seems to approach the nature of an aquatic being in its hind ones.

The Beavers begin to assemble in the month of June or July, in order to form a society, which is to continue for the greatest part of the year. They arrive in numbers from every side, and presently form a company of two or three hundred. The place of meeting is commonly a certain place where they fix their abode ; and this is always on the side of some lake or river.* If it be a lake in w

* Godman's account, chiefly taken from Hearne, of the manner in which the Beavers construct their dwellings, being somewhat particular, we insert it here.

“ They are not particular in the site they select for the establishment of their dwellings, but if in a lake or pond where a dam is required, they are careful to build where the water is sufficiently deep. In standing waters, however, they have not the advantage *furnished by a current for the transportation of their supplies of*

waters are always upon a level, they dispense with building a dam; but if it be a running stream, which is

h, when they build on a running stream, is always cut higher up the place of their residence, and floated down.

The materials used for the construction of their dams are the trunks and branches of small birch, mulberry, willow, poplar, &c. They begin to cut down their timber for building early in the summer, their edifices are not commenced until about the middle or latter of August, and are not completed until the beginning of the cold season. The strength of their teeth and their perseverance in this work can be fairly estimated by the size of the trees they cut down. These are cut in such a manner as to fall into the water; and then floated down to the site of the dam or dwellings. Small shrubs, &c. cut at a distance from the water, they drag with their teeth to the stream, and launch and tow them to the place of deposit. At a short distance from a beaver-dam, the number of trees which have been cut down appears truly surprising, and the regularity of the stumps which are left might lead persons unacquainted with the habits of the animal to suppose that the clearing was the result of human industry.

The figure of the dam varies according to circumstances. Should the current be very gentle, the dam is carried nearly straight across; but if the stream is swiftly flowing, it is uniformly made with a considerable curve, having the convex part opposed to the current. Along with trunks and branches of trees they intermingle mud and stones, to give greater security, and when dams have been long undisturbed and frequently repaired, they acquire great solidity, and their power of resisting the pressure of water and ice is greatly increased by the willow, birch, &c. occasionally taking root, and eventually growing up into something of a regular hedge. The materials used in constructing the dams are secured solely by the resting of the branches, &c. on the bottom, and the subsequent accumulation of mud and stones, by the force of the stream, or by the industry of the beavers.

The dwellings of the Beaver are formed of the same materials as the dams, and are very rude, though strong, and adapted in size to the number of their inhabitants. These are seldom more than four or six or eight young ones. Double that number have been oc-

subject to floods and falls, they then set about building a dam, or pier, that crosses the river, so as to form a dead

casionally found in one of the lodges, though this is by no means a very common occurrence.

“ When building their houses, they place most of the wood cross-wise and nearly horizontally, observing no other order than that of leaving a cavity in the middle. Branches which project inward are cut off with their teeth and thrown among the rest. The houses are by no means built of sticks first and then plastered, but all the materials, sticks, mud and stones, if the latter can be procured, are mixed up together, and this composition is employed from the foundation to the summit. The mud is obtained from the adjacent banks or bottom of the stream or pond, near the door of the hut. Mud and stones the Beaver always carries, by holding them between his fore paws and throat.

“ Their work is all performed at night, and with much expedition. When straw or grass is mingled with the mud used by them in building, it is an accidental circumstance, owing to the nature of the spot whence the latter was taken. As soon as any part of the material is placed where it is intended to remain, they turn round and give it a smart blow with the tail. The same sort of blow is struck by them upon the surface of the water when they are in the act of diving.

“ The outside of the hut is covered or plastered with mud late in the Autumn, and after frost has begun to appear. By freezing, it soon becomes almost as hard as stone, effectually excluding their great enemy, the wolverene, during the winter. Their habit of walking over the work frequently during its progress, has led to the absurd idea of their using the tail as a trowel. The habit of flapping with the tail is retained by them in a state of captivity, and, unless it be in the acts already mentioned, appears designed to effect no particular purpose. The houses, when they have stood for some time, and been kept in repair, become so firm from the consolidation of all the materials, as to require great exertion, and the use of the ice-chisel or other iron instruments, to be broken open. The laborious nature of such an undertaking may easily be conceived, when it is known that the tops of the houses are generally from four to six feet thick at the apex of the cone.”

at part which lies above and below. This dam, often fourscore or a hundred feet long, and ten feet thick at the base. If we compare the great-work with the power of the architect,* it will amaze; but the solidity with which it is built is astonishing than its size. The part of the river on which this dam is usually built is where it is most deep and where some great tree is found growing by the stream. This they pitch upon as proper for the principal part in their building; and, though thicker than a man's body, they yet instantly cut it down. For this operation they have no instrument but their four incisive teeth, which they level, and that also on the side they wish it to lie, is always across the stream. They then set the top branches, to make it lie close and serve as the principal beam of their fabric.

These operations are performed in common. At one end a number of Beavers are employed together at the tree in gnawing it down; and, when this part of their labour is accomplished, it becomes the business of another party to remove the branches, while a third party are engaged on the borders of the river, or lake, in cutting other trees, though smaller than the first tree, are yet as strong a leg, if not the thigh, of a common sized man. They carry with them by land to the brink of the river, and then by water to the place allotted for their building, sharpening them at one end, and forming stakes, they fix them in the ground, at a small distance from each other, and fill up the vacant spaces with

The best Beavers weigh from fifty to sixty pounds, and, in length are not more than three feet from the tip of the snout to the end of the tail.

pliant branches. While some are thus employed in fixing the stakes, others go in search of clay, which they prepare for their purpose with their tails and their feet, and with which, brought home in large quantities, they render their structure still more compact.

This structure is so ingeniously contrived, that it has not only all the extent, and all the solidity, which are requisite, but also a form the most proper for confining the water, and, when it has passed its bounds, for maintaining its weight, or baffling its attacks. At the top of their dike or mole, that is, at the part where it is least thick, they form two or three openings. These they occasionally enlarge or contract, as the river occasionally rises or falls; and when, from inundations either too powerful or too sudden, their works have been damaged, they are, with the utmost diligence and application, on the retreat of the waters, immediately repaired.

After this display of their labours to accomplish a public work, it would be superfluous to add to it a description of their private constructions, were it not that, in history, an account should be given of every fact, and that, in this first grand work of the Beaver, the intention uniformly is that the little habitation of each family should be rendered more commodious.

This habitation is always furnished with two passages, one for the purpose of a land, and the other of a water excursion. In shape it is almost always either oval or round, sometimes it is from four to five feet in diameter, and sometimes it consists of two, and even three stories, while the walls are always two feet thick. When it happens to consist of but one story, the walls are but a few feet high over which there is a kind of vault, that terminates the edifice, and serves as a covering for it. It is constructed *with such solidity as to be impenetrable to the heavies*

defy the most impetuous winds, and is plastered neatness, both outwardly and inwardly, that one usually suppose it to be the work of man. These nevertheless, use no instrument for the preparation of their mortar, but their feet, or for the application of their tails. They chiefly use such materials easily dissolved by water. Their wooden work consists of such trees as grow on the banks of rivers, as most easily cut down, stripped of their bark, and used in all these operations they perform before they attack a tree which they have once attacked. They sit at a distance of a foot or a foot and a half from the tree. They sit as they work; and, besides the advantage of a convenient posture, they have the pleasure of gnawing fresh bark and soft wood, both which are more palatable to most other kinds of aliment. Averse to dryness, they always provide an ample store of these for their use during the winter.* It is near their habitations that they establish their magazines; and to each hut there is one allotted, of a size proportioned to the wants of its inhabitants, to which they have all a common access; nor do they offer to plunder their neighbours. Their habitations, so to express them, have been seen, composed of logs, and even twenty-five dwellings. Such large habitations, however, are rare. In general, they do not consist of more than ten or a dozen families, each of which occupies a separate district, magazine, and habitation; and they do not allow any strangers to settle within its enclosure. The smallest dwellings contain two, four, and six; the largest contain eight, eighteen, twenty, and it is even said thirty.

Each dwelling is allotted for the provision of eight or ten Beavers, and is twenty-five to thirty feet square, and from eight to ten

Beavers ; and it seldom or never happens that the number of males and females is not upon a par. Moderately speaking, therefore, their society may be said to consist frequently of one hundred and fifty or two hundred women, who, having first exerted their united industry and diligence in rearing a grand public work, afterwards divide themselves into different bodies, in order to construct private habitations.*

However numerous the republic of Beavers may be, peace and good order are uniformly maintained in it. A common series of toil has strengthened their union, and the conveniences which they have procured for each other, and the abundance of provisions which, after having secured, they continue to consume together, render them happy within themselves ; and, having moderate appetites, entertaining even an aversion to blood and carnage, have not the smallest propensity to hostility or rapine. They actually enjoy all the blessings which man is only to desire. Friends to each other, if threatened by any enemies from abroad, they know how to avoid them ; and for this purpose, on the first alarm, they give notice of mutual danger, by striking the water with their tails, which sends forth a sound that is heard in their most important dwellings. On this occasion, each Beaver, as he thinks most expedient, plunges into the water, or conceals himself within the walls of his own habitation, which is secure from no danger but from the fire of the angry heavens, or the weapons of man, and which no animal dares attempt to open or to overturn.

These asylums are not only secure, but also very commodious. The floor is covered with ver

* In some seasons, a great mortality occurs among the Beavers, from some unknown cause, many being found dead in their lodges.

ing and tender branches of trees serving them for a pet, on which they never permit any of their excrements be left. The window which fronts the water serves them for a balcony, from which they enjoy the fresh air, and bathe themselves the greatest part of the day. In the water they remain in an upright posture, the head and the parts only being visible. This element is, indeed, so necessary to them, or rather gives them so much pleasure, that they seem unable, as it were, to live without frequent excursions in it. Sometimes they go to a considerable distance under the ice; and then they are easily taken, by blocking the dwelling on one hand, and lying in wait for them, at the same time, at a hole which is purposely formed a little way off in the ice, and to which they are obliged to come for breath.

The habit which this animal has, of continually keeping its tail and all the hind parts of the body in the water, seems to have changed the nature of its flesh. That of the fore parts, till we come to the reins, is of the same consistency, taste, and consistency as the flesh of land animals; but that of the tail, and of the hind legs and thighs, has the texture, the savour, and all the qualities of fish. As for the tail, in particular, it is even an extremity, an actual portion, of a fish fixed to the body of a quadruped. In length it generally measures a foot, in thickness an inch, and in breadth five or six inches. It is entirely covered over with scales, and has a skin altogether the same as that of a large fish.

The females are said to go four months with young. They bring forth about the close of winter, and their number generally consists of two or three at a time. Nearly during this period the males leave them, and go forth into the fields, where they enjoy all the sweets of the spring. In the season they pay occasional visits to their habitation,

but never reside in it. There, however, the females remain employed in suckling, tending, and rearing their little ones, who are in a condition to follow them at the expiration of a few weeks. They then, in their turn, go abroad where they feed on fish, or on the bark of young trees and pass the whole of their time upon the water, or among the woods.

Winter is the season which is principally allotted for hunting them, as it is then only that their fur is in perfection; and when, after their fabrics are demolished, a great number happen to be taken, their society is never restored; the few that have escaped captivity or death, disperse themselves, and become houseless wanderers; or concealed in some hole under ground, and reduced to the condition of other animals, they lead a timid life, no longer employ themselves but to satisfy their immediate and most urgent wants, no longer retain those faculties and qualities which they eminently possess in a state of society.

To capture Beavers residing on a small river or creek the Indians of America find it necessary to stake the stream across, to prevent the animals from escaping, and then they try to ascertain where the vaults or washes in the banks are situated. This can only be done by those who are very experienced in such explorations, and is thus performed:—The hunter is furnished with an ice-chisel lashed to a handle four or five feet in length; with this instrument he strikes against the ice as he goes along the edge of the banks. The sound produced by the blow informs him when he is opposite to one of these vaults. When one is discovered, a hole is cut through the ice of sufficient size to admit a full-grown beaver, and the search is continued until as many of the places of retreat are discovered as possible. During the time the most expe

ters are thus occupied, the others with the women are in breaking into the beaver-houses, which, as may be judged from what has been already stated, is a task of no small difficulty. The beavers, alarmed at the invasion of their dwelling, take to the water and swim with surprising swiftness to their retreats in the banks, but their entrance is betrayed to the hunters watching the holes in the ice, by the motion and discolouration of the water. The entrance is instantly closed with stakes of wood, and the beaver, instead of finding shelter in his cave, is made prisoner and destroyed. The hunter then pulls the animal if within reach, by the introduction of his hand and arm, or by a hook designed for this use, fastened to a long pole. Beaver-houses found in lakes or other standing waters offer an easier prey to the hunters, as there is no occasion for staking the water across.

The Indians inhabiting the countries watered by the tributaries of the Missouri and Mississippi, take the beaver principally by trapping, and are generally supplied with steel-traps by the traders, who do not sell, but lend them, in order to keep the Indians dependent upon themselves, and also to lay claim to the furs which they procure. The name of the trader being stamped on the trap, it is equal to a certificate of enlistment, and induces, when an Indian carries his furs to another trading establishment, that the individual wishes to avoid the payment of his debts. The business of trapping requires great experience and caution, as the senses of the beaver are very keen, and enable him to detect the recent presence of the hunter by the slightest traces. It is necessary that the hands should be washed clean before the trap is set and baited, and that every precaution should be employed to elude the vigilance of the animal. The bait which is used to entice the beavers is prepared

from the substance called castor (*castoreum*), or from the glandulous pouches of the male animal contain sometimes from two to three ounces. The substance is called by the hunters *bark-stone*, and is squeezed gently into an open-mouthed phial.

We meet with Beavers in America from the tenth degree of north latitude to the sixtieth, and even to the Arctic circle.* In the northern parts they are very common; the farther south we proceed, their number is still less, and to decrease. The same observation holds with respect to the Old Continent: we never find them numerous in the more northern countries; and in France, Spain, Greece, and Egypt, they are exceedingly rare. They formerly inhabited both England and Wales, but have long been extinct in both. Giraldus Cambrensis mentions them to have frequented the river Tievei, in Cardiganshire. They must, however, have been uncommon, as, in the tenth century, the Welsh laws valued a Beaver at the enormous sum of a hundred and twenty pence. The ancients knew them; and by the religion of the Jews it was forbidden to kill them.

Several authors have said, that the Beaver, being an aquatic animal, could not live solely on land. This opinion, however, is erroneous; for the Beaver which I mentioned in a preceding paragraph, having been brought when quite young in Canada, and always reared in a house, did not know the water when he was brought to England, was afraid of it, and refused to go into it. Even

* Pennant fixes the southern range of the American Beaver at latitude 30° , in Louisiana, not far from the Gulf of Mexico; while he mentions the confluence of the Ohio and Mississippi as the northern range, which is about seven degrees further to the northward. The northern range is, perhaps, on the banks of the river Ma-
—*Richardson.*

ed into a basin, there was a necessity for keeping it by force. A few minutes after, nevertheless, he was so well reconciled to it, that he no longer had any aversion to his new situation; and, when after- to his liberty, he frequently returned to it of his own accord, and would even roll about in the dirt, and upon the mud. One day he made his escape, and descended a cellar staircase into the quarries under the castle. There he swam to a considerable distance in the dark waters which are at the bottom of those quarries. But no sooner did he see the light of the torches ordered down for the purpose of finding him, than he turned back, and allowed himself to be taken without the smallest resistance.

This animal familiar without being fawning; and when he sees people at table, he is sure to ask for something. This he does by a little plaintive cry, and by the waving of his fore paws. When he has obtained what he desires, he carries it away, and conceals himself, in order to enjoy it in private. In several instances he has been domesticated, and become as docile as a dog. When he sleeps, which he does very often, he lies upon his side. No food comes amiss to him, meat excepted; but he constantly refuses, either raw or boiled. He is very shy of every thing he comes near; and it was found necessary to line with tin the tun in which he was brought

for the purpose of the fur, which is indeed the most valuable article furnished by the Beaver, this animal fur- substance that has been considerably used in the manufacture of hats. This substance, which is known by the name of castoreum, is contained in two bladders.* The savages, it

is added that the Beavers extract the liquor which is contained in the bladders, by pressing them with the foot; and that it

is said, obtain an oil from the tail of the Beaver, which employ as a topical remedy for different complaints; the flesh of this animal, though fat and delicate, is yet and disagreeable to the palate.

There are two kinds of hair on the skin of the Beaver; that next the skin is short, and as fine as down; the outer coat is scantier, thicker, and longer. The down is manufactured into hats, stockings, caps, and other articles. The skin is so considerable an article of trade for the species which produces it will, perhaps, at length be exterminated. At one sale, the Hudson's Bay Company sold about fifty-four thousand; and, in 1798, a hundred and six thousand were exported to Europe and China from Canada alone. In the year 1743, the imports of Beaver into London and Rochelle, amounted to upwards of 100,000 and there is reason to suppose that a considerable additional quantity was at that period introduced illicitly into Great Britain. In 1827, the importation of Beaver into London for more than four times the extent of country than that which was occupied in 1743, much exceed 50,000.

The senses of the Beaver are very acute; and so is its smell, that it will suffer no filth, no bad smells to remain near it. When kept too long in confinement, under a necessity of voiding its excrement, it drops near the threshold of its prison, and, when the door is opened, is sure to push them out.

BLACK BEAVER.

Beavers entirely black, but not differing in any respect from those of the ordinary dusky brown color.

It gives them an appetite when they are averse to food. It is, however, seems to be, that the animal uses this liquid in greasing its tail.

of occasional occurrence. I saw one or two which were kept as curiosities. Hearne, in speaking of this variety, says, "Black Beaver and that of a beautiful gloss are not uncommon; perhaps they are more plentiful at Churchill, than at any other Factory in the Bay; but it is rare to get more than twelve or fifteen of their skins in the course of one year's trade."—*Richardson.*

SPOTTED BEAVER.

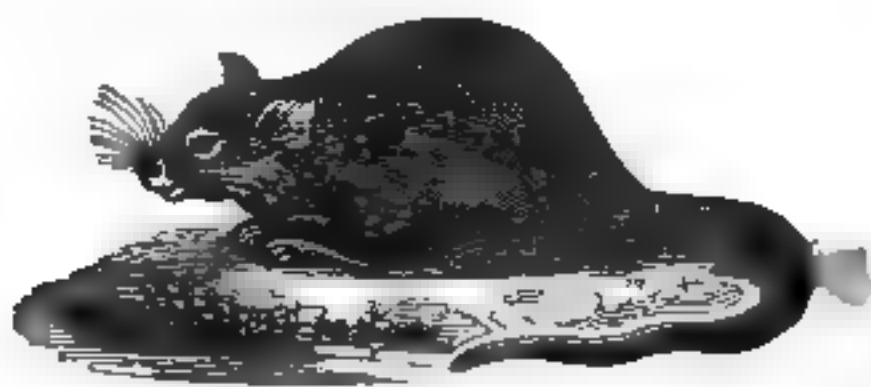
This variety is more rare than the preceding, and never came under my notice. Mr. Say mentions that an Indian had, in the course of his life, caught three specimens of beaver with a large white spot on their breasts.

Richardson.

WHITE BEAVER.

An albino variety of the Beaver is of very rare occurrence. Hearne saw but one in the course of twenty years, and it had many reddish and brown hairs along the ridge of the back; its sides and belly were of a glossy silvery white. When the Indians find an individual of this kind, they convert the skin into a medicine bag, and are very unwilling to dispose of it.—*Richardson.*

THE ONDATRA, MUSQUASH, OR MUSK RAT.



This animal is closely allied in form and habits to the beaver, and is found in the same parts of America as that animal, from 30 to 60 or 70 degrees of latitude. But it is

more familiar in its habits, as it is to be found only a small distance from large towns. The Musquash is a watchful but not a very shy animal. It may be frequently seen sitting on the shores of small muddy islands, not easily to be distinguished from a piece of earth, till, on the approach of danger, it suddenly plunges into the water. It forms burrows on the banks of streams and ponds, the entrance to which is in deep water. These burrows extend to great distances, and do extensive injury to the farms by letting in the water upon the land.

In some situations, these animals build houses of a conical form, resembling those of the beaver, formed of mud, grass and reeds plastered together. They feed upon the roots and tender shoots of aquatic plants, and on the leaves of grasses. They are excellent swimmers, dive well, and can remain for a long time under water. It is rare to have an opportunity of seeing the animal during the day, it then lies concealed in its burrow, and it is not till night that it issues forth for food or recreation. It does not, like the beaver, lay up a store of provision for the winter; and builds a new habitation every season.

This animal is common in the Atlantic States, and its skin being valuable for hats, it is much hunted. The Indians kill them by spearing them through the walls of their houses. Between four and five thousand skins are annually imported into Great Britain from North America.

THE ONDATRA, and the DESMAN, are two animals which must not be confounded, though they have both been erroneously nominated *Musk Rats*, and though they have a few common characteristics.

The ONDATRA, or MUSK RAT of North America differs from the Desman, in having its toes all separated from

other ; in having eyes very conspicuous, and a snout short ; whereas of the DESMAN, or MUSK RAT of covy, the toes of the hind feet are united by a membrane. The tail of both is flat ; and not only in this circumstance, but in a number of essential characteristics, differ from the pilori, or musk rat of the Antilles.

The Ondatra is of the size of a small rabbit, and of the form of a rat. Its head is short, and similar to that of the musk rat ; its hair is soft and glossy, with a very thick growth underneath, nearly like that of the beaver ; its tail long, and though of a different form, being flattened laterally, it is covered nevertheless with little scales, in the same manner as those of other rats.

Its ears are very short, but not uncovered, like those of the domestic rat ; being furnished with hair, both outwardly and inwardly.

Some of the striking singularities which have been remarked in the Ondatra, are, first, the force and great extension of the muscles of the skin, which enables the animal by contracting its skin, to compress its body, and reduce it to a smaller size ; and secondly, the suppleness of the false ribs, which permits a contraction of the body so considerable, that the musk rat is known to obtain an easy entrance into holes too narrow for the admission of animals much smaller than itself.

As the Ondatra belongs to the same country as the musk rat ; as, like that animal, it is fond of water ; and as, though smaller, it has yet nearly the same figure, the same colour, the same kind of hair, they have been often compared with each other.

These animals breed once a year, and generally produce five or six at a time. So strong are their fore teeth, so excellently calculated for gnawing, that when one

of them is shut up in a box, it presently makes a hole to escape through, let the wood be ever so hard.

These animals are little inclined to ferocity, and, when taken young, are easily tamed. In the very early period of life they are also, which might not be expected, exceedingly handsome; for then the long and almost uncovered tail, which renders their figure very disagreeable afterwards, is very short. They play with all the innocence and sprightliness of young cats; they never bite, and with ease might be reared, were it not for the circumstance of their noxious smell.

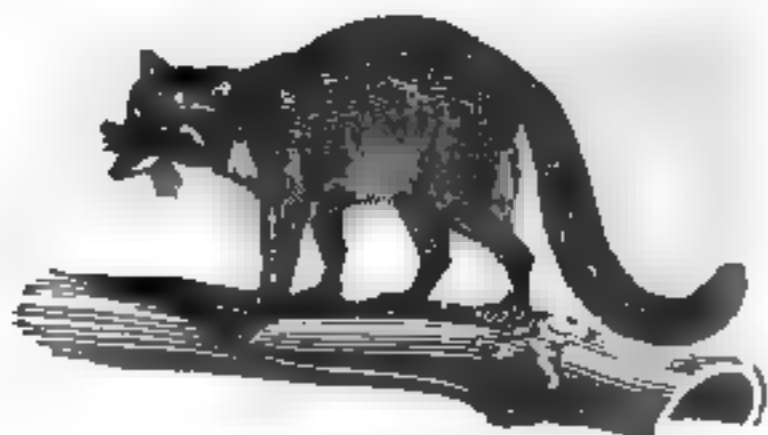
THE DESMAN.

THIS animal, a native of Lapland and Russia, is about the size of a common rat: it has a long and slender nose; no external ears; and very small eyes: the tail is compressed sideways, and its hind feet are webbed: it is of a dusky colour; the belly is a light ash. It frequents the banks of rivers, where it feeds on small fishes; and, in its turn is often devoured by pikes and other fish, to which it communicates so powerful a musky flavour as renders them exceedingly unpleasant to the taste. A kind of musk much resembling the genuine sort, is extracted from its tail. The skin of the Desman is frequently laid among clothes to preserve them from moths.

THE RACoon

Is an animal of about the same size as a small badger; its body is short and bulky; its fur is fine, long, thick, blackish at the surface, and gray towards the bottom; its head like that of a fox, but its ears are round and shorter; its eyes are large, of a yellowish green, and over them there is a black and transverse stripe; its snout is sharp; its *tail is thick*, but tapering towards a point, and marked al

ly from one end to the other with black and white brownish rings, and is at least as long as the body ; the legs are much shorter than the hind ones, and both are armed with five strong, sharp claws.



animal, while eating, usually supports itself on its legs, and uses its paws to hold its food, and it can open an oyster with the utmost dexterity. If water be near, it is in general dips its food into it. By its pointed ears, it is enabled to climb trees with great facility. It ascends the trunk with the same swiftness that it moves on the plain, and frolics about to the extremity of the branches with great security and ease : on the ground, it rather bounds than runs, and its motions, though not directly oblique, are yet always quick and expeditious.

The Raccoon is a native of most parts of North America. It has never yet been found in the Old Continent. Buffon asserts that it is common in South America, but I believe it has never been found farther south than Florida.

It may be tamed without difficulty, and is then very docile and sportive, but is as mischievous as a monkey, and seldom remains at rest. Of ill treatment he is very sensible, and never forgives those from whom he has received it. *He has also an antipathy to sharp and*

harsh sounds, such as the bark of a dog and the cry of a child. His fur is used by the hatters, his skin is converted into gloves and upper leather for shoes, and his flesh is considered as a delicacy by the negroes.

We shall insert here the greater part of a letter written by Mr. Blanquart de Salines to Count de Buffon, on the correctness of which full reliance may be placed.

“My racoon was always kept chained before he came into my possession, and in this captivity he seemed sufficiently gentle, though not caressing; all the inmates of the house paid him the same attention, but he received them differently; treatment he would submit to from one person, invariably offended him when offered by another. When his chain was occasionally broken, liberty rendered him insolent; he took possession of his apartment, suffering no one to approach him, and was with difficulty again confined. During his stay with me, his confinement was frequently suspended; without losing of him, I allowed him to walk about with his chain on, and he expressed his gratitude by various movements. It was otherwise when he escaped by his own efforts: he would then ramble for three or four days together over the neighbouring roofs, and only descend at night into the yards, enter the hen-roosts and destroy the poultry, especially the Guinea-fowls, eating nothing but their heads. His chain did not render him less sanguinary, though it made him more circumspect; he then employed stratagem, allowing the poultry to familiarize themselves with him by partaking of his food; nor was it until he had induced them to feel in perfect security, that he would seize a fowl and tear it in pieces: he also killed kittens in the same manner.

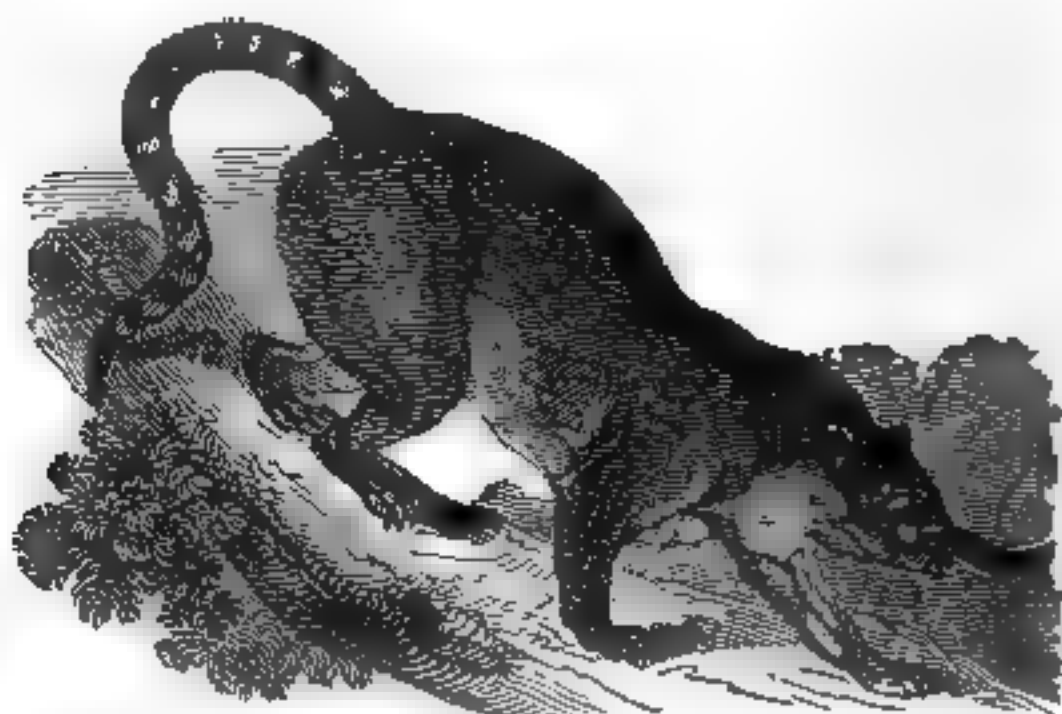
“If the racoon be not very grateful for favours received, he is singularly sensible of bad treatment; a servant one day struck him some blows with a stick, and often after-

wards vainly endeavoured to conciliate him, by offering eggs and shrimps, of which the animal was very fond. At the approach of this servant he became enraged, and with sparkling eyes would spring towards him, making violent outcries; under such circumstances he would accept of nothing until his enemy had withdrawn. The voice of the racoon, when enraged, is very singular, sometimes resembling the whistling of a curlew, and at others the hoarse barking of an old dog. When struck by any one, or attacked by an animal stronger than himself, he offered no resistance; like the hedge-hog, he hid his head and paws, by rolling his body in form of a ball, and would have suffered death in that position. I have observed that he never left hay nor straw in his bed, preferring to sleep on the boards; when litter was given, he threw it away immediately. He did not seem very sensible to cold, and passed two out of three winters exposed to all the rigours of the season, and did well, notwithstanding he was frequently covered with snow. I do not think he was solicitous to receive warmth; during some frosts I gave him separately warm water and water almost frozen, to soak his food in, and he always preferred the latter. He was at liberty to sleep in the stable, but often preferred passing the night in the open yard."

THE BROWN COATI.

THIS animal, of which we are now about to treat, many authors have called *coatimundi*. It is very different from the animal described in the preceding article. It is of a smaller size than the racoon; its body and neck, its head and nose, are of a more lengthened form; its upper jaw is an inch, or an inch and a half longer than the lower one; and its snout, which is moveable in every direction, turns up at the point. The eyes of the Coati are also smaller than the

eyes of the racoon, and are surrounded by three white spots ; its hair is longer and coarser, its legs are shorter



and its feet longer ; but, like the racoon, its tail is diversified with rings, alternately black and fulvous ; and to all its feet there are five claws.

This animal has a practice of eating its own tail, which when not mutilated, is longer than its body, and which generally rears aloft, and can move with ease in any direction.*

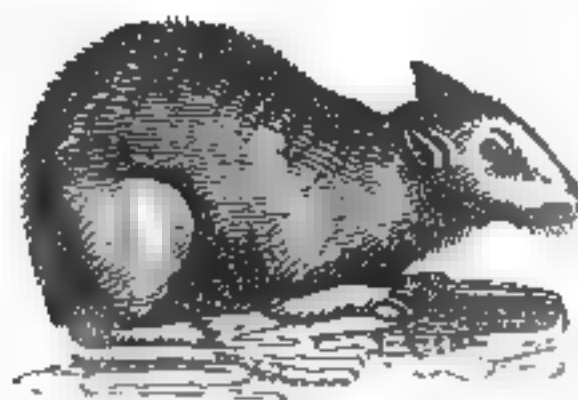
From this circumstance one general inference may be drawn ; namely, that in those parts which are elongated to a great degree, and of which the extremities are const

* It has been considered very wonderful that this animal should eat its own tail, which certainly appears to be the fact. The extreme length of its tail, in which the blood circulates but feebly, exposes it to the influence of the cold or frost ; and the exceedingly tormenting irritation produced thereby, leads the animal to gnaw and scratch its tail to relieve the excessive itching. The disease spreads, and the anguish induces the coon to gnaw more furiously, and eventually his life is destroyed by the extension of the inflammation and irritation to the spine, &c.—Godman.

quently very remote from the seat of the senses, from the centre of feeling, that feeling must be weak, and the more so, the greater the distance and the smaller the part.

As for the Coati in other respects, it is an animal of prey, which subsists on flesh and blood, which, like the fox, destroys small animals and poultry, hunts for the nests of little birds, and devours their eggs; and it is probable from this conformity of disposition that some authors have considered the Coati as a species of small fox. It inhabits the woods of South America. In pursuit of its prey, it climbs trees with much agility. When tamed, which it easily is, it is fond of being caressed, but does not become much attached to its owner.

THE AGOUTI.



This animal is about the size of a hare, and has been considered, erroneously, as a kind of rabbit, or large rat, by the generality of nomenclators. As it has the hair of a hog, so also it has the voracious appetite of that animal. It eats indiscriminately of all things; and when satiated, it hides the remainder, like the dog or the fox, for a future occasion.

It does not, like the rabbit, dig a hole in the ground, but burrows in the holes of trees. Its ordinary food consists of the roots of the country, potatoes, yams, and such fruits as fall from the trees in autumn. It uses its fore paws like

the squirrel, to carry its food to its mouth ; and as its hind feet are longer than the fore ones, it runs very swiftly on plain ground, or up a hill, but upon a descent with great danger of falling. Its sight is excellent ; its hearing is more so than that of any other animal ; and whenever it is whistled at, it stops to hearken. The flesh is dressed like that of a sucking pig, and of such as are well fed, is tolerably good, though it has always a peculiar taste, and is rather tough.

It is hunted by dogs ; and whenever it goes into a hole in the ground, where the canes cover the place, it is easily taken ; for it is embarrassed every step it takes, so that a man may easily come up with it, and kill it without any other assistance than a stick. When in the open country, it usually runs with great swiftness before the dogs, and gains its retreat, within which it continues to hide. Nothing but filling the hole with smoke can force it out. For this purpose the hunter burns faggots or straw at the entrance, and conducts the smoke in such a manner that it fills the whole cavity. While this is doing, the little animal seems sensible of its danger, begs for mercy with a most plaintive cry, but seldom quits its hole until the utmost extremity.

The Agouti seems to be a native of the south part of America ; nor is at all known in the Old Continent. It is however, very common in Brazil, Guiana, St. Dominick, and all the islands around. To the cold and temperate parts of America this animal is a stranger.

CHAPTER XIV.

(Carnivorous Animals continued...The Lion...The Bengal Lion...The Lioness and her Cubs...The Cape Lion...The Puma, or American Lion...The Tiger...The Leopard...The Jaguar...The Panther...The Cheetah...The Lynx...The Caracal...The Striped Hyæna...The Spotted Hyæna...The Civet and Zibet...The Javanese Civet...The Genet...The Paradoxurus...The Prehensile Paradoxurus.

THE LION.



It has been remarked, that in all hot climates, the terrestrial animals are larger and stronger than in cold or temperate ones. They are also bolder and more spacious, all their natural qualities seeming to partake of the ardour of the climates in which they live. The Lion, born beneath the burning sun of Africa, or of India, is above all others the fiercest and most terrible. Our wolves, our other car-

nivorous animals, far from being his rivals, are hardly worthy to be his providers. The Lions of America* (if, indeed, they deserve to be called Lions) are, like the climate in which they are produced, infinitely milder than those of Africa; and, what plainly proves that the degree of fierceness in this animal depends on the degree of heat, is, that even in the same country, those which inhabit the high mountains, where the air is more temperate, are different in disposition from those that dwell in the plains, where the heat is excessive.

As the Lion has no enemy but man, and his species now probably reduced to the fiftieth part of what it formerly was, it follows, that the human race, instead of having suffered a considerable diminution since the time of the Romans, is, on the contrary, more numerous and more generally diffused. This superiority in the numbers, and the arts of the human species, while it suffices to conquer the Lion, serves also to enervate and to discourage him for he is brave only in proportion to the success of his former encounters. Accustomed to measure his strength with every animal he meets, the habit of conquering renders him intrepid and terrible. Having never experienced the dangerous arts and combinations of man, these animals have no apprehensions from his power. They boldly face him, and seem to brave the force of his arms. They are not daunted even with the opposition of numbers: a single Lion of the desert often attacks an entire caravan; and

* The animal here referred to, is the Puma or Cougar, common both North and South America. It is sometimes called the American Lion, and sometimes the American Panther. It is a totally distinct animal from the Lion of Africa, and nothing can be more absurd, than to consider it as a degenerated animal of that species, reduced by the force of climate.

after an obstinate combat, when he finds himself overpowered, instead of flying, he continues to combat, retreating, and still facing the enemy till he dies. On the contrary, the Lions which inhabit the peopled countries of Morocco, or India, having become acquainted with man, and experienced the superiority of his arms, have lost all their courage, so as to be scared away with a shout; and seldom attack any but the unresisting flocks or herds, which even women and children are sufficient to protect.

The outward form of the Lion seems to speak the superiority of his internal qualities. His figure is striking, his look confident and bold, his gait proud, and his voice terrible. His stature is not overgrown, like that of the elephant, or the rhinoceros; nor is the shape clumsy, like that of the hippopotamus, or the ox. He is in every respect compact and well-proportioned, a perfect model of strength joined with agility.

His force and muscular power he manifests outwardly by his prodigious leaps and bounds; by the strong and quick agitation of his tail, which alone is sufficient to throw a man on the ground; by the facility with which he moves the skin of his face, and particularly that of his forehead, which adds greatly to his physiognomy, or rather to the expression of fury in his countenance; and lastly, by the facility he has of shaking his mane, which is not only bristled up, but moved and agitated on all sides when he is enraged.

The largest Lions are about eight or nine feet in length, from the snout to the insertion of the tail, which is of itself four feet long; and these large Lions are about four or five feet in height. Those of the small size are about five feet and a half in length, and three and a half in height. In all her dimensions, the Lioness is about one fourth less than the Lion.

The Lion is furnished with a mane, which becomes greater in proportion as he advances in age. The *Lion* however, is without this appendage at every age. The American animal, which the natives of Peru call *Conchagua*, and to which the Europeans have given the denomination of *Lion*, has no mane ; it is also much smaller, weaker, and more cowardly than the real Lion. In truth, it is rather doubtful whether these animals are at all of the same species.

Both the ancients and the moderns allow that the Lion when newly born, is in size hardly superior to a weanling. In other words, that he is not more than six or seven feet long ; and if so, some years at least must necessarily elapse before he can increase to eight or nine feet. The ancients likewise mention, that he is not in a condition to walk two months after he is brought forth ; but, without giving entire credit to these assertions, we may, with great appearance of truth, conclude that the Lion, from the smallness of his size, is at least three or four years in growing, and that, consequently, he must live seven times the length of four years, that is, about twenty-five years.

It is usually supposed that the Lion is not possessed of the sense of smelling in such perfection as most other animals of prey. It is also remarked, that too strong a smell incommodes him ; that he seldom goes abroad in the middle of the day ; that he commits all his ravages in the night ; and that when he sees a fire kindled near a house or flock, he will not venture near it ; that though his sight is bad, it is not, however, so faulty as his smell ; and unlike the dog or the wolf, he rather hunts by the former than by the latter.

The Lion, when hungry, boldly attacks all animals that come in his way ; but, as he is very formidable, as *they all seek* to avoid him, he is often obliged to his

order to take them by surprise. For this purpose he crouches upon his belly, in some thicket, or among the long grass, which is found in many parts of the forest. In this retreat he continues, with patient expectation, until his prey comes within a proper distance; and he then springs after it with such force, that he often seizes it at the first bound. If he misses the effort, and in two or three reiterated springs cannot seize his prey, he continues motionless for a time, seems to be very sensible of his disappointment, and waits for a more favourable opportunity. He devours a great deal at a time, and generally fills himself for two or three days to come. His teeth are so strong that he very easily breaks the bones, and swallows them with the rest of the body. It is reported that he sustains hunger a very long time; but thirst he cannot support in an equal degree, his temperament being extremely hot. He drinks as often as he meets with water, lapping like a dog. He generally requires about fifteen pounds of raw flesh in a day; and seldom devours the bodies of animals when they begin to putrefy; but he chooses rather to hunt for fresh spoil than return to that which he had half devoured before. While young and active, the Lion subsists on what he can obtain by the chase, and seldom quits his native deserts and forests; but when he becomes old, heavy, and less qualified for exercise, he approaches the habitations of man, to whom, and to domestic animals, he then becomes a more dangerous enemy. It is observed, however, that when he sees men and animals together, it is always on the latter, never on the former, that he vents his fury; unless indeed he should be struck, and then, at no loss to know whence the blow came, he instantly deserts his prey, in order to obtain revenge for the injury. The flesh of the camel he is said to prefer to that of any other animal. *He is likewise exceedingly fond of*

that of young elephants, which, from their inability to resist him till they have received the assistance of their tusks, he easily dispatches, when unprotected by the dam; nor are there any animals able to oppose the Lion, but the elephant, the rhinoceros, the tiger, and the hippopotamus.

However terrible this animal may be, it is not uncommon, with dogs of a large size, and well supported with a proper number of men on horseback, to chase him, dislodge him, and force him to retire. But for this enterprise it is necessary that the dogs, and even the horses, should be previously disciplined; since almost all animals tremble and fly at the very smell of the Lion.

Though the skin of the Lion is firm and compact, it is not, however, proof against a musket ball, nor even a javelin; but he is seldom known to be dispatched with one blow. Like the wolf, he is frequently taken by stratagem; and for this purpose a deep hole is dug in the earth, over which, when slightly covered with earth and sticks, some living animal is fastened as a bait. When thus entrapped, all his fury subsides; and if advantage is taken of the first moments of his surprise, or his disgrace, he may easily be chained, muzzled, and conducted to a place of security.

The flesh of the Lion is of a strong and disagreeable flavour; yet the Negroes and the Indians do not dislike it, and it frequently forms a part of their food.

The good qualities, and particularly the courage and magnanimity* of the Lion, have been the theme of pane-

* The "lordly Lion" conceals himself near the places where deer and other animals come to drink, and springs upon them from his ambush, like the veriest tom-cat; having feeble sight, and being unfit for the chase, he follows the wild dogs and chacals, which run down buffaloes, antelopes, &c. and when they have succeeded, drives them off and gorges to repletion: as he relinquishes the carcass when satiated, he is called *generous*; as he does not attack and devour men—

gyric to Buffon, and other writers on natural history. Later naturalists, however, are disposed to estimate his merits at a much lower rate. "At the time when men first adopted the Lion as the emblem of courage (says that intelligent traveller, Mr. Burchell) it would seem that they regarded great size and strength as indicating it; but they were greatly mistaken in the character they have given to this indolent, skulking animal, and have overlooked a much better example of courage, and of other virtues also, in the bold and faithful dog." Mr. Barrow also brands him with the character of cowardly and treacherous.

His forbearance and generosity (says Mr. Bennet), if the facts be carefully investigated, will be found to resolve themselves into no more than this: that in his wild state he destroys only to satiate his hunger or revenge, and never, like the 'gaunt wolves' and 'sullen tigers,' of whom the poet has composed his train, in the wantonness of his power and the malignity of his disposition; and that, when tamed, his hunger being satisfied, and his feelings being free from irritation, he suffers smaller animals to remain

when not hungry, he is considered *magnanimous*; he retires slowly, facing his enemies, being unable to run with speed, and is celebrated for his noble spirit; and as he does not kill the wild dogs and other small animals, because—it is not in his power to catch them, he is then called *clement*; while in virtue of his great strength, dreadful claws, horrid teeth and awful roar, he is considered as altogether *royal*. Yet this king of quadrupeds has not half the moral excellence of a poodle dog, nor a thousandth part of the dignity of character possessed by the elephant. He is, moreover, no match for the great tiger of Asia, which, in ferocity, savage daring, audacious destructiveness, unconquerable and unappeasable hatred to mankind, is infinitely more *royal*, and a more consistent emblem of a great number of human kings, who have aided, in various ages and countries, to retard the progress of improvement and the march of mind.—Godman.

in his den uninjured, is familiar with, and sometimes fond of, the keeper, by whom he is attended and fed, and will even, when under complete control, submit to the caresses of strangers.

“ But even this limited degree of amiability, which, in an animal of less formidable powers, would be considered as indicating no peculiar mildness of temper, is modified by the calls of hunger, by the feelings of revenge, which he frequently cherishes for a considerable length of time, and by various other circumstances, which render it dangerous to approach him unguardedly, even in his tamest and most domesticated state, without previously ascertaining his immediate state of mind. On such occasions, no keeper possessed of common prudence would be rash enough to venture on confronting him : he knows too well that it is no boy’s play to

———seek the Lion in his den,

And fright him there, and make him tremble there ;

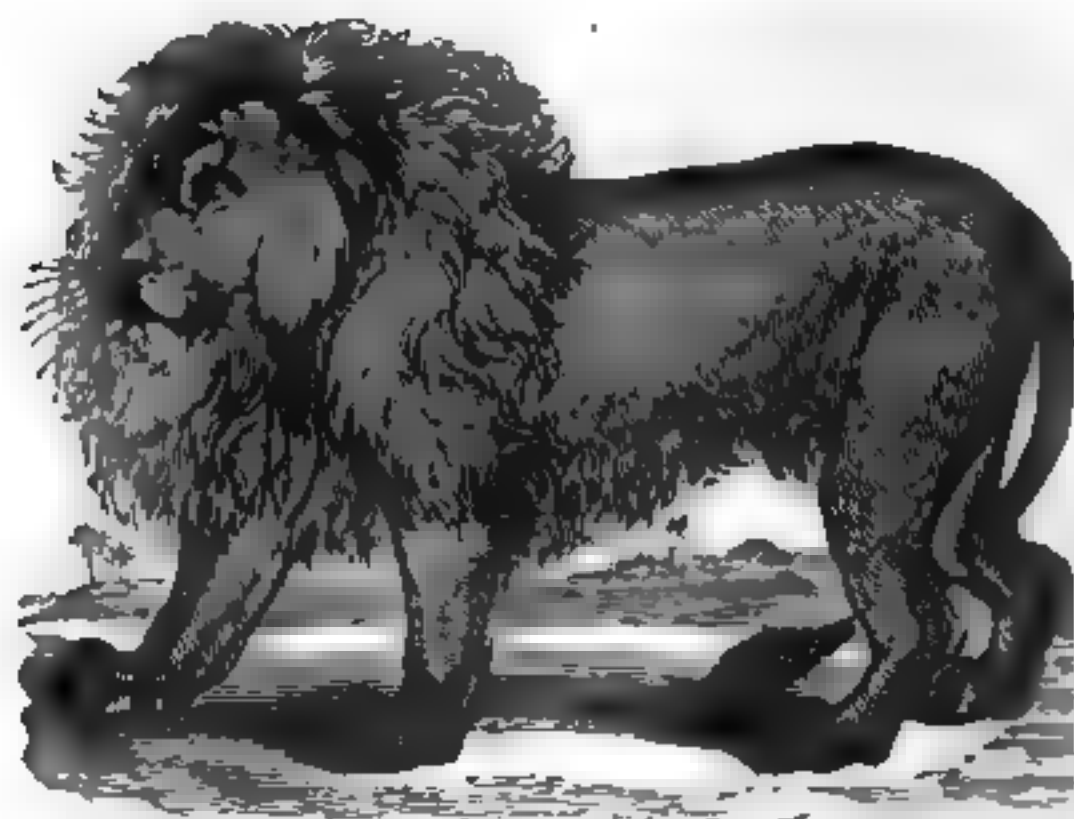
for in this state of irritation, from whatever cause it may have arisen, he gives free scope to his natural ferocity, unrestrained by that control to which at other times he submits with meek and unresisting patience.”

It appears, however, to be a well authenticated fact, that neither the Lion nor the tiger can bear the steady gaze of the human eye, but are completely cowed by it. A writer in the South African Journal says, “ The Bechuano chief, old Peyshow, (now in Cape Town) conversing with me a few days ago, said that the Lion very seldom attacks man if unprovoked ; but he will frequently approach within a few paces and survey him steadily ; and sometimes he will attempt to get behind him, as if he could not stand his look, but was yet desirous of springing upon him unawares. If a person in such circumstances attempts either to fight or to fly, he incurs the most imminent peril ; but if he have

ent presence of mind coolly to confront him, without
 rance of either terror or aggression, the animal will,
 most every instance, after a little space, retire. The
 mastering effect of the human eye upon the Lion has
 frequently mentioned, though much doubted by trav-
 ; but, from my own inquiries among Lion hunters, I
 rfectly satisfied of the fact ; and an anecdote related
 a few days ago, by Major Macintosh, proves that this
 ating effect is not restricted to the Lion. An officer
 dia, well known to my informant, having chanced to
 le into a jungle, suddenly encountered a royal tiger.
 rencontre appeared equally unexpected on both sides,
 oth parties made a dead halt, earnestly gazing on each
 . The gentleman had no fire arms, and was aware
 a sword would be no effective defence in a struggle
 fe with such an antagonist ! But he had heard that
 the Bengal tiger might be sometimes checked by
 ng him firmly in the face. He did so : in a few min-
 the tiger, which appeared prepared to make his final
 g, grew disturbed—slunk aside—and attempted to
 round upon him behind. The officer turned con-
 ly upon the tiger, which still continued to shrink from
 glance ; but darting into the thicket, and again issuing
 at a different quarter, it persevered for above half an
 in this attempt to catch him by surprise ; till at last
 rly yielded the contest, and left the gentleman to pur-
 his *pleasure walk*. The direction he now took, as may
 asily believed, was straight to the tents, at double
 k time.”

will now be proper to give some description of the two
 ies of Lions, the Asiatic and the African. The en-
 ings represent animals which are now in the Tower
 agerie.

THE BENGAL LION.



THE uniformity of his colour is one characteristic which distinguishes the Lion from his congeners of the same race. Except in his young state, when there is an appearance of stripes, he is of a pale tawny above, which becomes somewhat lighter beneath. A second mark is, the long and flowing mane of the full grown male, which, commencing nearly at the root of his nose, extends backwards to his shoulders, and gracefully undulates on each side of face and neck. A third is, a long and blackish tuft of hair which terminates his tail. In size, the Asiatic Lion rarely equals the Southern African. He is of a more slender form and pale yellow, and has a peculiar appendage in the form of long hair which begins beneath the neck, and occupies the whole of the middle line of the body below.

The individual depicted in the cut is called "the Lion," though he is only five years old. This denomination, however, is given only to distinguish him from

the Lion, which has been for a shorter period in the power. George was his original name.

George and his female companion were taken in Bengal, 1823, by General Watson. The General, while out one morning on horseback, with a double-barreled rifle, was suddenly surprised by a large male Lion, which bounded upon him from a thick jungle. He fired, and it fell dead most close to his feet. A female then darted out upon him. He wounded her, and she fled into the thicket. Suspecting that her den was close at hand, he followed, and tracked her to it, and completed her destruction. "In

the den were found a beautiful pair of cubs, male and female, supposed to be then not more than three days old. The General brought away with him, and succeeded, with the assistance of a goat, who was prevailed upon to act in the capacity of foster mother to the royal pair, in rearing them until they attained sufficient age and strength to enable them to bear the voyage to England. On their arrival there, in September, 1823, he presented them to his Majesty, who commanded them to be placed in the Tower. The male of this pair is the subject of the present, the female that of the succeeding article."

George is fed once in twenty-four hours; and his meal generally eight pounds of beef, exclusive of bone. This he seizes greedily, tears instantly to pieces with his claws, and ravenously devours; unlike Lions in a state of nature, who, after having slain their victim, are said to pause over for a considerable time before they satisfy their appetite.

THE LIONESS AND HER CUBS.

The Lioness has no mane, is of smaller size than the Lion, more slenderly and delicately made, and more gracefully agile in her movements. The head of the Lion is almost uniformly elevated; that of the Lioness is almost

uniformly carried on a level with the line of her back which gives her a sullen and downcast look.



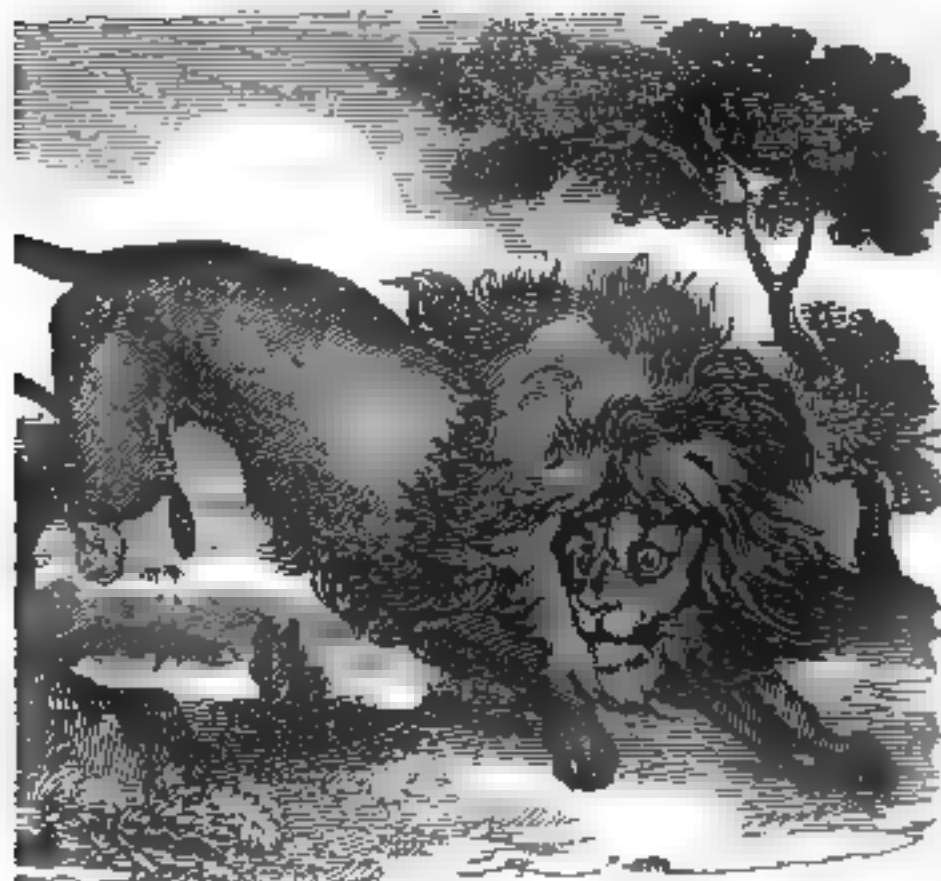
For a considerable time after her arrival in England, Lioness as well as the Lion, was exceedingly tame and docile, and was often allowed to roam at large about open yard. They were both, however, at length put under more restraint, in the fear that they might eventually do mischief. But even long after this, "her disposition was far from exciting any particular fear in the minds of keepers. As an instance of this, we may mention that when, on one occasion, about a year and a half ago, she had been—suffered through inadvertence to leave her cage and when she was by no means in good temper, Geo Willoughby, the under keeper, had the boldness, and armed only with a broom, to venture upon the task of driving her back into her place of confinement, which he finally accomplished, not, however, without strong symptoms of resistance on her part, as she actually made three springs upon him, all of which he was fortunate enough to avoid."

however, she gave birth to her Cubs, her temper changed. She is violent beyond measure, sus-
 y one who approaches her den of an intention to
 her cherished offspring, and, as Mr. Bennet elo-
 xpresses it, "exhibits the truly beautiful but
 picture of maternal tenderness combined with
 ocity, each in their utmost intensity of force and
 "

ubs, of which there are three, two male and one
 are whelped on the 20th of October, 1827, the
 battle of Navarino. They are the finest that
 bred in England, and, at present, are in the best

They have all the playfulness of kittens, and
 is unremittingly assiduous in licking their fur,
 ng them in a state of cleanliness.

THE CAPE LION.



ape Lion there are two varieties, which, from the
 ir coats, and particularly of their manes, are des-
 02

ignated by the settlers as the Pale and the Black Lion. The latter of these is the larger and more ferocious of the two, and occasionally is found of the enormous length of eight feet from the tip of the nose to the origin of the tail. The tail is usually about half the length of the body. The pale variety is the more common. In the Tower there are specimens of both species.

The colonists at the Cape bear the Lion a deadly hatred for the mischief which he does to them, particularly in the destruction of their horses, for the flesh of which he seems to have an especial liking. Being excellent marksmen, they will almost attack him singly; but the more common mode of attacking him is by hunting parties.

The hunting of an African Lion is described with infinite spirit by Mr. Pringle, who was a settler on the eastern frontier of the Cape colony. "One night (says he) a Lion, that had previously purloined a few sheep out of my kraal, came down and killed my riding horse about a hundred yards from the door of my cabin. Knowing that the Lion, when he does not carry off his prey, usually conceals himself in the vicinity, and is very apt to be dangerous by prowling about the place in search of more game, I resolved to have him destroyed or dislodged without delay. I therefore sent a messenger round the location, to invite all who were willing to assist in the enterprise, to repair to the place of rendezvous as speedily as possible. In an hour every man of the party (with the exception of two pluckless fellows who were kept at home by the women) appeared ready mounted and armed. We were also reinforced by about a dozen of the 'Bastuard' or Mulatto Hottentots, who resided at that time upon our territory as tenants or herdsmen,—an active and enterprising, though rather an unsteady, race of men. Our friends the Tarkaboors, many of whom are excellent Lion hunters, were all

stant to assist us, our nearest *neighbours* residing twenty miles from the location. We were there-
account of our own inexperience, obliged to make
Hottentots the leaders of the chase.

The first point was to track the Lion to his covert.
This was effected by a few of the Hottentots on foot.
Coming from the spot where the horse was killed, they
traced the *spoor* * through grass, and gravel, and brush-
with astonishing ease and dexterity, where an in-
experienced eye could discern neither footprint nor mark
at all,—until at length we fairly tracked him into a
thicket, or straggling thicket of brushwood and ever-
about a mile distant.

The next object was to drive him out of this retreat, in
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“But even this limited degree of amiability, which, in an animal of less formidable powers, would be considered as indicating no peculiar mildness of temper, is modified by the calls of hunger, by the feelings of revenge, which he frequently cherishes for a considerable length of time, and by various other circumstances, which render it dangerous to approach him unguardedly, even in his tamest and most domesticated state, without previously ascertaining his immediate state of mind. On such occasions, no keeper possessed of common prudence would be rash enough to venture on confronting him: he knows too well that it is no boy's play to

———seek the Lion in his den,

And fright him there, and make him tremble there;

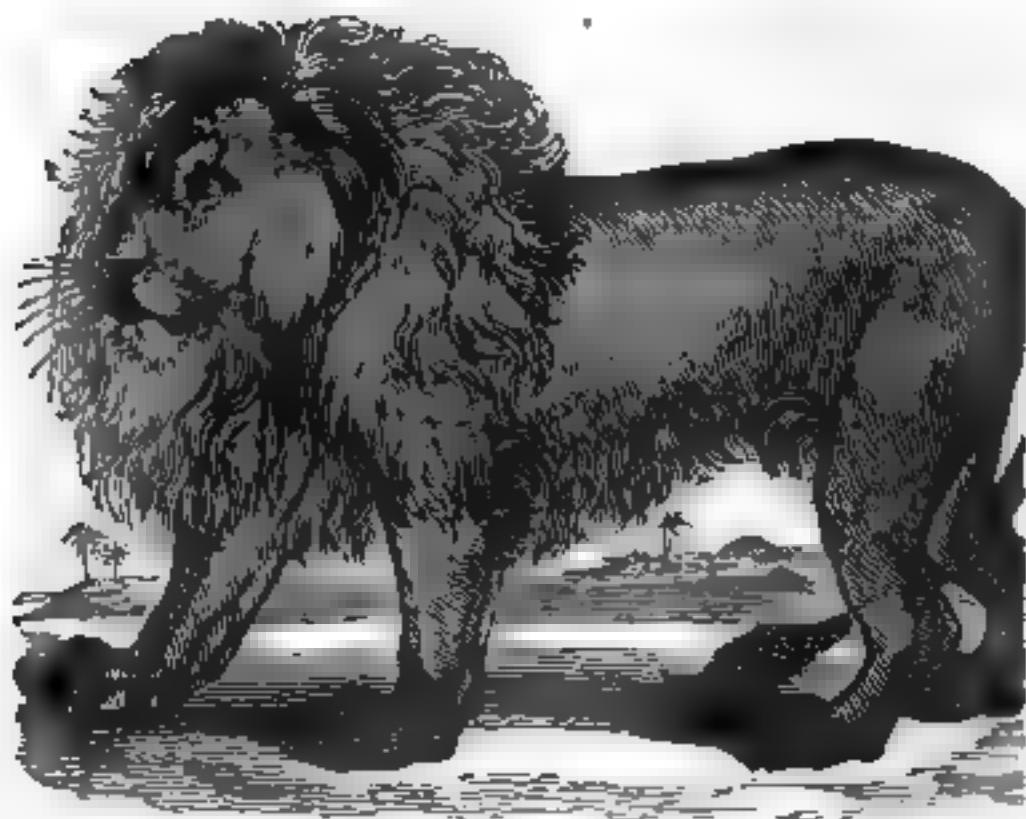
for in this state of irritation, from whatever cause it may have arisen, he gives free scope to his natural ferocity, unrestrained by that control to which at other times he submits with meek and unresisting patience.”

It appears, however, to be a well authenticated fact, that neither the Lion nor the tiger can bear the steady gaze of the human eye, but are completely cowed by it. A writer in the South African Journal says, “The Bechuano chief, old Peyshow, (now in Cape Town) conversing with me a few days ago, said that the Lion very seldom attacks man if unprovoked; but he will frequently approach within a few paces and survey him steadily; and sometimes he will attempt to get behind him, as if he could not stand his look, but was yet desirous of springing upon him unawares. If a person in such circumstances attempts either to fight or to fly, he incurs the most imminent peril; but if he have

presence of mind coolly to confront him, without either terror or aggression, the animal will, every instance, after a little space, retire. The ring effect of the human eye upon the Lion has recently mentioned, though much doubted by travellers, from my own inquiries among Lion hunters, I am fully satisfied of the fact; and an anecdote related a few days ago, by Major Macintosh, proves that this ring effect is not restricted to the Lion. An officer well known to my informant, having chanced to go to a jungle, suddenly encountered a royal tiger: neither appeared equally unexpected on both sides, parties made a dead halt, earnestly gazing on each other. The gentleman had no fire arms, and was aware there would be no effective defence in a struggle with such an antagonist! But he had heard that a Bengal tiger might be sometimes checked by a firm blow on the face. He did so: in a few minutes the tiger, which appeared prepared to make his final attack, was so disturbed—slunk aside—and attempted to strike him upon him behind. The officer turned round on the tiger, which still continued to shrink from him; but darting into the thicket, and again issuing from a different quarter, it persevered for above half an hour in its attempt to catch him by surprise; till at last he eluded the contest, and left the gentleman to pursue his *casual walk*. The direction he now took, as may be believed, was straight to the tents, at double speed."

It will now be proper to give some description of the two Lions, the Asiatic and the African. The latter represent animals which are now in the Tower of London.

THE BENGAL LION.



THE uniformity of his colour is one characteristic distinguishes the Lion from his congeners of the race. Except in his young state, when there is an absence of stripes, he is of a pale tawny above, which becomes somewhat lighter beneath. A second mark is, the long and flowing mane of the full grown male, which, coming nearly at the root of his nose, extends backward over his shoulders, and gracefully undulates on each side of his face and neck. A third is, a long and blackish hair which terminates his tail. In size, the Asiatic rarely equals the Southern African. He is of a more slender form and pale yellow, and has a peculiar appendage of long hairs which begin beneath the neck, and occupy the whole of the middle line of the body below.

The individual depicted in the cut is called "the Lion," though he is only five years old. This designation, however, is given only to distinguish him from

Cape Lion, which has been for a shorter period in the Tower. George was his original name.

George and his female companion were taken in Bengal, in 1823, by General Watson. The General, while out one morning on horseback, with a double-barreled rifle, was suddenly surprised by a large male Lion, which bounded out upon him from a thick jungle. He fired, and it fell dead almost close to his feet. A female then darted out upon him. He wounded her, and she fled into the thicket. Suspecting that her den was close at hand, he followed, soon tracked her to it, and completed her destruction. "In the den were found a beautiful pair of cubs, male and female, supposed to be then not more than three days old. These the General brought away with him, and succeeded, by the assistance of a goat, who was prevailed upon to act in the capacity of foster mother to the royal pair, in rearing them until they attained sufficient age and strength to enable them to bear the voyage to England. On their arrival there, in September, 1823, he presented them to his Majesty, who commanded them to be placed in the Tower. The male of this pair is the subject of the present, the female that of the succeeding article."

George is fed once in twenty-four hours; and his meal is generally eight pounds of beef, exclusive of bone. This he seizes greedily, tears instantly to pieces with his claws, and ravenously devours; unlike Lions in a state of nature, who, after having slain their victim, are said to pause over it for a considerable time before they satisfy their appetite.

THE LIONESS AND HER CUBS.

The Lioness has no mane, is of smaller size than the Lion, more slenderly and delicately made, and more graceful and agile in her movements. The head of the Lion is almost uniformly elevated; that of the Lioness is almost

uniformly carried on a level with the line of her back which gives her a sullen and downcast look.

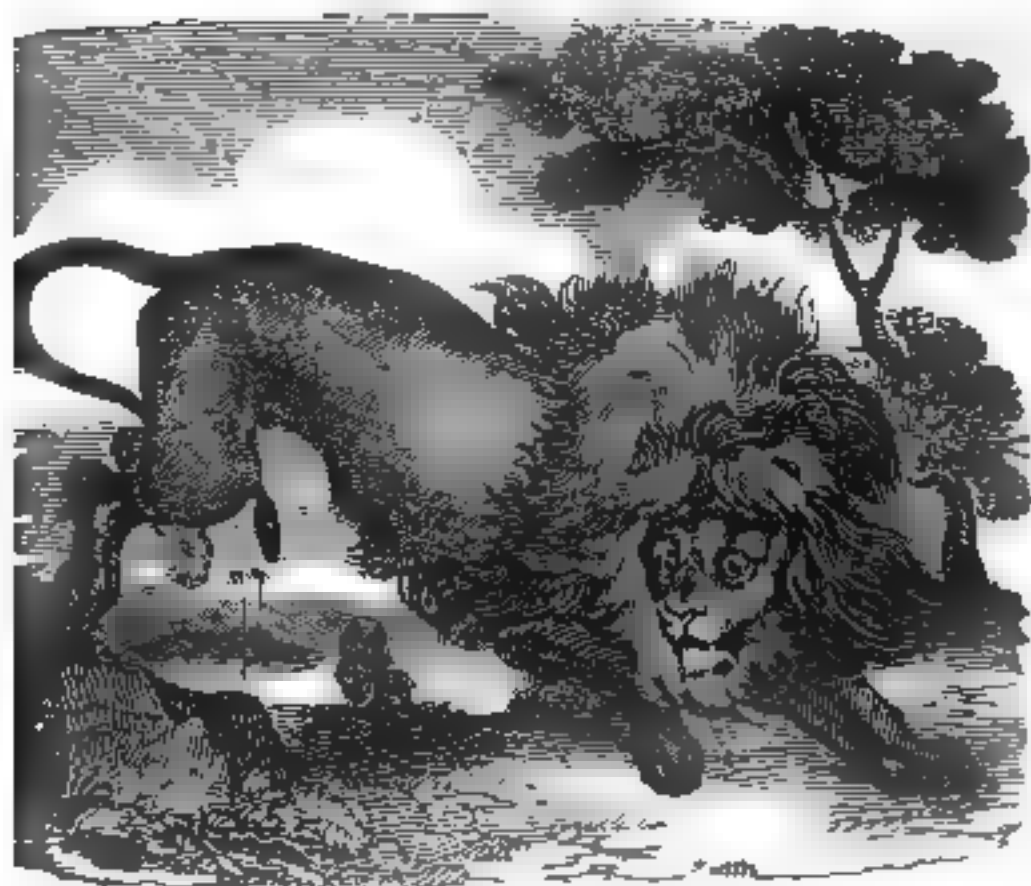


For a considerable time after her arrival in England Lionnas as well as the Lion, was exceedingly tame docile, and was often allowed to roam at large about open yard. They were both, however, at length put under more restraint, in the fear that they might eventually do mischief. But even long after this, "her disposition was far from exciting any particular fear in the minds of the keepers. As an instance of this, we may mention when, on one occasion, about a year and a half ago, she had been suffered through inadvertence to leave her cage and when she was by no means in good temper, George Willoughby, the under keeper, had the boldness, and armed only with a broom, to venture upon the task of driving her back into her place of confinement, which was finally accomplished, not, however, without strong symptoms of resistance on her part, as she actually made *spring* upon him, all of which he was fortunate enough to avoid."

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e Cubs, of which there are three, two male and one a, were whelped on the 20th of October, 1827, the f the battle of Navarino. They are the finest that ever bred in England, and, at present, are in the best ion. They have all the playfulness of kittens, and dam is unremittingly assiduous in licking their fur, seeping them in a state of cleanliness.

THE CAPE LION.



ie Cape Lion there are two varieties, which, from the f their coats, and particularly of their manes, are des-

ignated by the settlers as the Pale and the Black. The latter of these is the larger and more ferocious of the two, and occasionally is found of the enormous length of eight feet from the tip of the nose to the origin of the tail. The tail is usually about half the length of the body. The pale variety is the more common. In the Tower there are specimens of both species.

The colonists at the Cape bear the Lion a deep hatred for the mischief which he does to them, particularly in the destruction of their horses, for the flesh of which he seems to have an especial liking. Being excellent men, they will almost attack him singly; but the common mode of attacking him is by hunting parties.

The hunting of an African Lion is described with vivacious spirit by Mr. Pringle, who was a settler on the eastern frontier of the Cape colony. "One night (says Mr. Pringle) a Lion, that had previously purloined a few sheep out of a kraal, came down and killed my riding horse about a hundred yards from the door of my cabin. Knowing that the Lion, when he does not carry off his prey, usually conveys himself in the vicinity, and is very apt to be dangerous, prowling about the place in search of more game, I resolved to have him destroyed or dislodged without delay. I therefore sent a messenger round the location, to invite all who were willing to assist in the enterprise, to repair to a place of rendezvous as speedily as possible. In an hour every man of the party (with the exception of two purposeless fellows who were kept at home by the women) appeared ready mounted and armed. We were also accompanied by about a dozen of the 'Bastuard' or Mulatto tentots, who resided at that time upon our territory as servants or herdsmen,—an active and enterprising, though rather an unsteady, race of men. Our friends the *Tentoots*, many of whom are excellent Lion hunters, were

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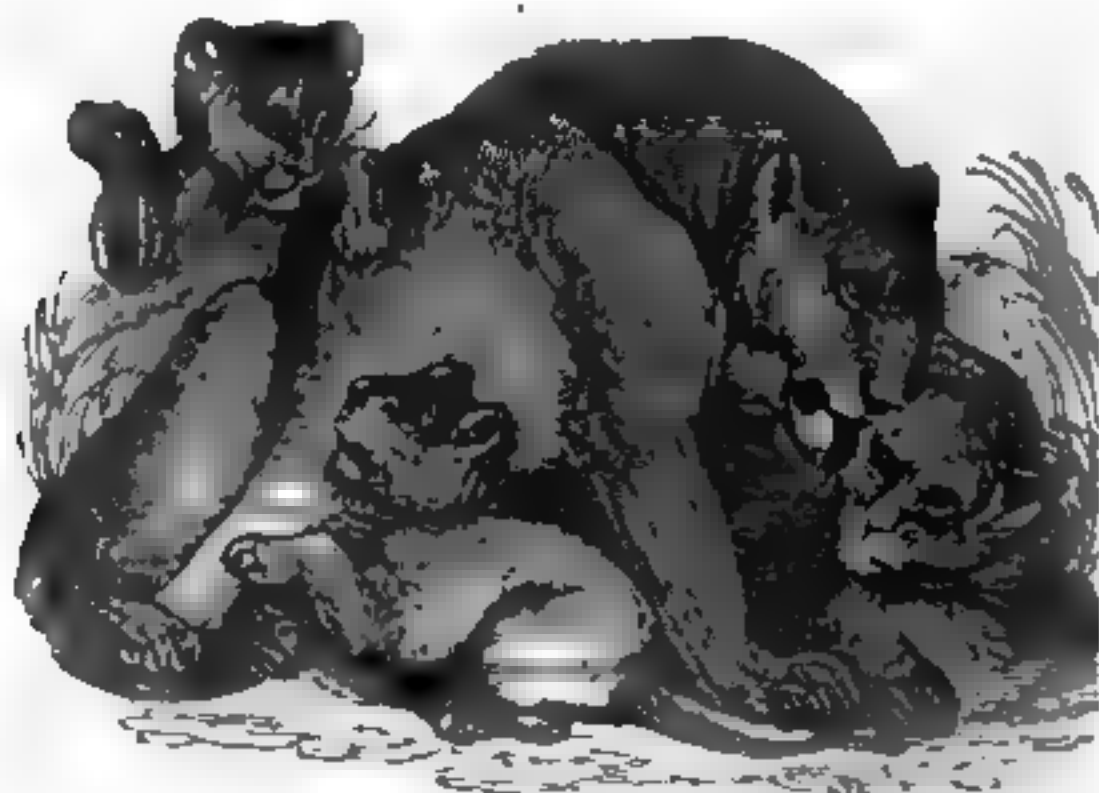
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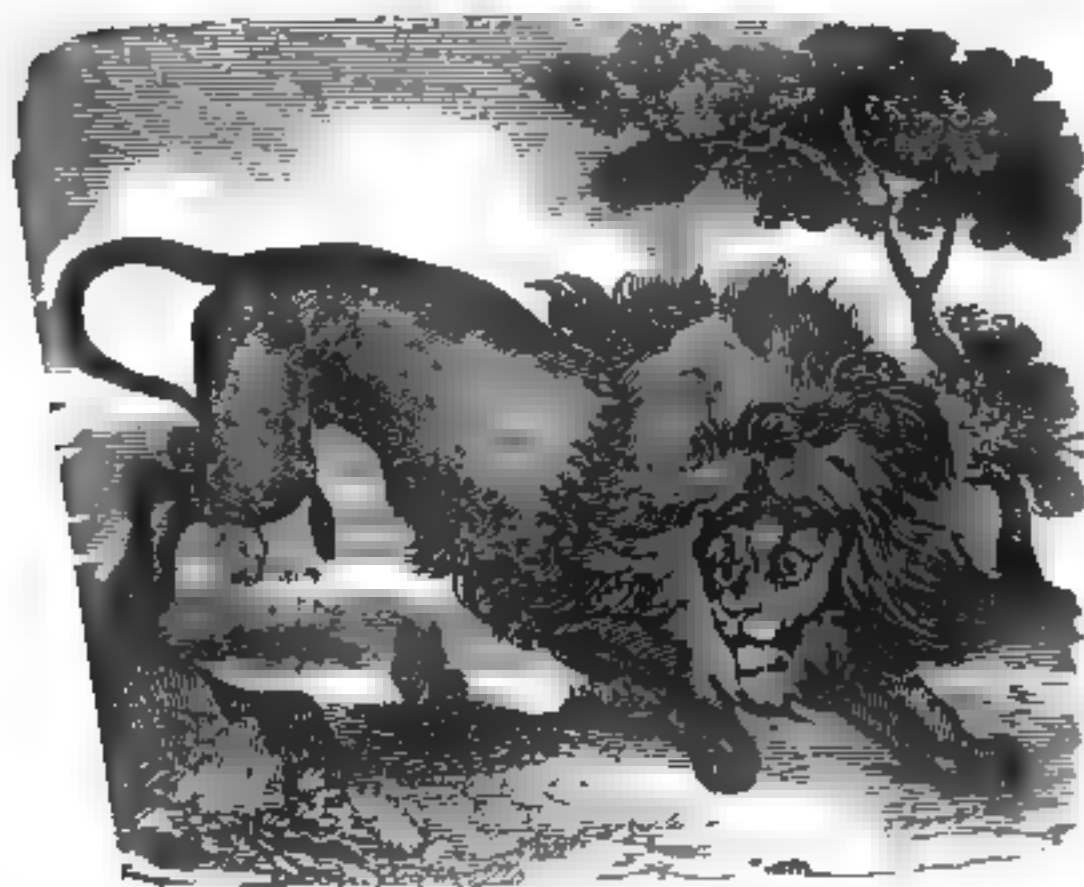
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* The Hottentot name for a foot-mark.

rage, coolness, and experience. The frontier boors are, however, generally such excellent marksmen, and withal so cool and deliberate, that they seldom fail to shoot him dead as soon as they get within a fair distance.

“In the present instance, we did not manage matters quite so scientifically. The Bastuards, after recounting to us all these and other sage laws of Lion hunting, were themselves the first to depart from them. Finding that the few indifferent hounds which we had made little impression on the enemy, they divided themselves into two or three parties, and rode round the jungle, firing into the spot where the dogs were barking round him, but without effect. At length, after some hours spent in thus beating about the bush, the Scottish blood of some of my countrymen began to get impatient; and three of them announced their determination to march in and beard the Lion in his den, provided three of the Bastuards (who were superior marksmen) would support them and follow up their fire, should the enemy venture to give battle. Accordingly, in they went (in spite of the warnings of some more prudent men among us), to within fifteen or twenty paces of the spot where the animal lay concealed. He was crouched among the roots of a large evergreen bush, with a small space of open ground on one side of it; and they fancied, on approaching, that they saw him distinctly lying glaring at them from beneath the foliage. Charging the Bastuards to stand firm and level fair, should *they* miss, the Scottish champions let fly together, and struck, not the Lion, as it afterwards proved, but a great block of red stone, beyond which he was actually lying. Whether any of the shot grazed him is uncertain, but, with no other warning than a furious growl, forth he bolted from the bush. The pusillanimous Bastuards, in place of now pouring in their volley upon him, instantly turned and fled helter-skelter, leaving

do his pleasure upon the defenceless Scots ; who, empty guns, were tumbling over each other, in their effort to escape the clutch of the rampant savage. In a moment he was upon them, and with one stroke of his paw dashed the nearest to the ground. The scene was magnificent ! There stood the Lion with his paw upon his late foe, looking round in conscious power and pride at the bands of his assailants, and with a port the most grand and imposing that can be conceived. It was the most magnificent thing I ever witnessed. The danger of the scene, however, rendered it at the moment too terrible to enjoy either the grand or the ludicrous part of the scene. We expected every instant to see one or more of the party torn in pieces ; nor, though the rest of the party were standing within fifty paces with their guns cocked and ready, durst we fire for their assistance. One was under the Lion's paw, and the others scrambling to get out of us in such a way as to intercept our aim at him. The scene passed far more rapidly than I have described it. Suddenly the Lion, after steadily surveying us for a few seconds, seemed willing to be quits with us on fair terms ; with a fortunate forbearance (for which he met but an ineffectual recompense), turned calmly away, and driving his bounding dogs like rats from among his heels, bounded over the adjoining thicket like a cat over a footstool, clearing the thickets and bushes twelve or fifteen feet high, as readily as they had been tufts of grass, and, abandoning the chase, retreated towards the mountains.

After ascertaining the state of our rescued comrade, who fortunately had sustained no other injury than a scratch on the back, and a severe bruise in the ribs, the force with which the animal had dashed him to the ground, we renewed the chase with Hottentots and in full cry. *In a short time we again came up with*

the enemy, and found him standing at bay under an old mimosa tree, by the side of a mountain stream which we had distinguished by the name of Douglas Water. The dogs were barking round, but afraid to approach him, for he was now beginning to growl fiercely, and to brandish his tail in a manner that showed he was meditating mischief. The Hottentots, by taking a circuit between him and the mountain, crossed the stream, and took a position on the top of a precipice overlooking the spot where he stood. Another party of us occupied a position on the other side of the glen; and placing the poor fellow thus between two fires, which confused his attention and prevented his retreat, we kept battering away at him till he fell, unable again to grapple with us, pierced with many wounds.

“He proved to be a full grown Lion of the yellow variety, about five or six years of age. He measured nearly twelve feet from the nose to the tip of the tail. His fore leg below the knee was so thick that I could not span it with both hands; and his neck, breast, and limbs appeared, when the skin was taken off, a complete congeries of sinews.”

Major Denham furnishes us with the following anecdote. “The skin of a noble Lion was sent me by the sheikh, which had been taken near Kabshary, measuring from the tail to the nose fourteen feet two inches. He had devoured four slaves, and was at last taken by the following stratagem: the inhabitants assembled together, and with loud cries and noises drove him from the place where he had last feasted; they then dug a very deep blaqua, or circular hole, armed with sharp-pointed stakes; this they most cunningly covered over with stalks of the gussub; a bundle of straw, enveloped in a tobe, was laid over the spot, to which a gentle motion, like that of a man *turning in sleep*, was occasionally given by means of a line

some distance. On their quitting the spot, and ceasing, the Lion returned to his haunt, and was watching his trap for seven or eight hours—by approaching closer and closer,—and at length he



readful spring on his supposed prey, and was pre- to the bottom of the pit. The Kabsharians now o the spot, and before he could recover himself, ed him with their spears."

ark gives us the following account in his first ex- to Africa. "As we were crossing a large open ere there were a few scattered bushes, my guide, a little way before me, wheeled his horse round ent, calling out something in the Foulah language,

did not understand. I inquired in Mandingo meant; *wava billi billi* (a very large Lion), said made signs for me to ride away; but my horse was h fatigued; so we rode slowly past the bush from he animal had given us the alarm. Not seeing

any thing myself, however, I thought my guide had been mistaken, when the Foulah suddenly put his hand to his mouth, exclaiming *Soubah an allahi*, (God preserve us!) and to my great surprise, I then perceived a large Red Lion at a short distance from the bush, with his head crouched between his fore paws. I expected he would instantly spring upon me, and instinctively pulled my feet from the stirrups, to throw myself on the ground, that my



horse might become the victim, rather than myself. But it is probable the Lion was not hungry, for he quietly suffered us to pass, though we were fairly within his reach. My eyes were so rivetted upon this sovereign of beasts, that I found it impossible to remove them until we were at a considerable distance."

The African Lion is often doomed to an ignoble death. He is dull of hearing, difficult to be awaked, and when suddenly awaked, has no presence of mind. Of these circumstances the Bushmen of Africa avail themselves to accom-

plish his destruction. "The wolf and the tiger (says Dr. Philip) generally retire to the caverns and the ravines of the mountains ; but the Lion is most usually found in the open plain, and in the neighbourhood of the flocks of antelopes, which invariably seek the open country, and which manifest a kind of instinctive aversion to places in which their powerful adversary may spring upon them suddenly and unexpectedly. It has been remarked of the Lion, by the Bushmen, that he generally kills and devours his prey in the morning at sunrise, or sunset. On this account, when they intend to kill Lions, they generally notice where the spring-bucks are grazing at the rising of the sun ; and by observing, at the same time, if they appear frightened and run off, they conclude that they have been attacked by the Lion. Marking accurately the spot where the alarm took place, about eleven o'clock in the day, when the sun is powerful, and the enemy they seek is supposed to be fast asleep, they carefully examine the ground, and finding him in a state of unguarded security, they lodge a poisoned arrow in his breast. The moment the Lion is thus struck, he springs from his lair, and bounds off as helpless as the stricken deer. The work is done ; the arrow of death has pierced his heart, without even breaking the slumbers of the Lioness which may have been lying beside him ; and the Bushman knows where, in the course of a few hours, or even in less time, he will find him dead, or in the agonies of death."

Mr. Burchell furnishes us with the following lively description:—

"The day was exceedingly pleasant, and not a cloud was to be seen. For a mile or two we travelled along the banks of the river, which in this part abounded in tall mat-rushes. The dogs seemed much to enjoy prowling about and examining every bushy place, and at last met

with some object among the rushes which caused them to set up a most vehement and determined barking. We explored the spot with caution, as we suspected, from the peculiar tone of their bark, that it was what it proved to be, Lions. Having encouraged the dogs to drive them out, a task which they performed with great willingness, we had a full view of an enormous black-maned Lion, and a Lioness. The latter was seen only for a minute, as she made her escape up the river, under concealment of the rushes; but *the Lion* came steadily forward and stood still to look at us. At this moment we felt our situation not free from danger, as the animal seemed preparing to spring upon us, and we were standing on the bank at the distance of only a few yards from him, most of us being on foot and unarmed, without any visible possibility of escaping. I had given up my horse to the hunters, and was on foot myself, but there was no time for fear, and it was useless to attempt avoiding him. I stood well upon my guard, holding my pistols in my hand, with my finger upon the trigger, and those who had muskets kept themselves prepared in the same manner. But at this instant, the dogs boldly flew in between us and the Lion, and surrounding him, kept him at bay by their violent and resolute barking. The courage of these faithful animals was most admirable; they advanced up to the side of the huge beast, and stood making the greatest clamour in his face, without the least appearance of fear. The Lion, conscious of his strength, remained unmoved at their noisy attempts, and kept his head turned towards us. At one moment, the dogs perceiving his eyes thus engaged, had advanced close to his feet, and seemed as if they would actually seize hold of him, but they paid dearly for their imprudence, for, without discomposing the majestic and steady attitude in which he stood fixed, he merely moved his paw, and at the next

ant I beheld two lying dead. In doing this, he made little exertion that it was scarcely perceptible by what means they had been killed. Of the time which we had wasted by the interference of the dogs, not a moment was ; we fired upon him ; one of the balls went through his side just between the short ribs, and the blood immediately began to flow, but the animal still remained standing in the same position. We had now no doubt that he would spring upon us ; every gun was instantly re-loaded ; happily we were mistaken, and were not sorry to see him move quietly away ; though I had hoped in a few minutes to have been enabled to take hold of his paw without danger.

This was considered, by our party, to be a Lion of the greatest size, and seemed, as I measured him by comparison with the dogs, to be, though less bulky, as large as an

He was certainly as long in body, though lower in stature ; and his copious mane gave him a truly formidable appearance. He was of that variety which the Hottentots distinguish by the name of the *Black Lion*, on account of the blacker colour of the mane, and which is said to be always larger and more dangerous than the other, which they call the *Pale Lion*. Of the courage of a lion I have no very high opinion, but of his majestic air and movements, as exhibited by this animal, while at liberty in his native plains, I can bear testimony. Notwithstanding the pain of a wound, of which he must soon afterwards have died, he moved slowly away with a stately and measured step.

“At the time when men first adopted the Lion as the emblem of courage, it would seem that they regarded great size and strength as indicating it ; but they were greatly mistaken in the character they have given to this violent, skulking animal, and have overlooked a much

better example of true courage, and of other virtues also in the bold and faithful dog."

We shall close our account of the Lion with the following remarks from the "Library of Entertaining Knowledge":—

"We have thus contemplated the Lion, as described by intelligent travellers and close observers; and we have seen the urgent necessity by which he is driven to the destruction of animal life, and the terrible powers by which he accomplishes that destruction. As the objects of his appetite, and the means which he employs for its gratification, are in themselves upon an ample scale, and thus fill the mind with an idea of great suffering inflicted by equal ferocity, so do we feel an instinctive shuddering in reading of herds put to flight—of some one trembling victim borne off to be torn to pieces by the beast in his lair—of man even suddenly deprived of existence by his desperate onset. Yet the same power and the same ferocity are constantly displayed before our eyes, though upon a smaller scale. The cat which springs upon the mouse is as formidable in its ability to injure, within its peculiar range, as the lion which carries away the antelope from his companions. The same instincts guide each to the same destruction of the lives of others of the animal creation. Throughout all nature we see the like necessities producing the like effects; and those necessities have been considered to form part of the general design, which has thus established a sort of counterpoise to the power and preponderance of any one individual condition of existence. At any rate, we can have no doubt, from an examination of the physical structure of carnivorous animals, that in the destruction of life they fulfil the laws of the nature; and, however imperfectly we may understand the ends of those laws, we cannot be insensible to the perfection of the means by which they are carried into execution."

The Lion, as we have seen, principally lives in the herd and is always found where there are large herds of antelopes and other animals feeding together, in that position which is characteristic of each species. To all animals he is an object of unceasing dread. It is evinced by the agitation which oxen display when a Lion approaches them that they can scent him at a considerable distance. Whatever may be his physical strength, therefore we know that it is prodigious, it is evident he cannot accomplish his purposes by strength alone. The instinctive fear of the creatures upon which he preys is constantly called into action, by their keen sight and their sense of scent; and they would remove to some distant place before the destroyer could reach them. The Lion, as well as the tiger, and others of the same species, does not run. He either walks, or creeps, or, for a short distance, advances rapidly by great bounds.* It is evident, therefore, that he must seize his prey by stealth; he is not fitted for an open attack; and that his characteristic is necessarily that of great power united to consideration in its exercise.

Every one, almost, is familiar with the roar of the lion. The sound of terror, and produces an appalling effect. It is evinced by travellers that it sometimes resembles the crash which is heard at the moment of an earthquake; but he produces this extraordinary effect by laying himself down upon the ground, and uttering a half-stifled growl, which means the noise is conveyed along the earth.† Instantly this roar is heard by the animals who are resident in the plains, they start up with alarm; they fly in all directions; they rush into the very danger which they

* Wilson's Illustrations of Zoology.

† Burchell, vol. ii.

seek to avoid. This fearful sound, which the Lion utters, is produced by the great comparative size of the larynx,* the principal organ of voice in all animals.† He utters it to excite that fear which is necessary to his easy selection of an individual victim.

“The Lion, as well as all of the cat tribe, takes his prey at night; and it is necessary, therefore, that he should have peculiar organs of vision. In all those animals which seek their food in the dark, the eye is usually of a large size, to admit a great number of rays; and that part which is called the *choroides* reflects, instead of absorbing, the light. The power of seeing in the dark, which the cat tribe possesses, has always appeared a subject of mystery, and it is natural that it should be so, for man himself sees with more difficulty in the dark than any other animal; he has a compensation in his ability to produce artificial light. This peculiar kind of eye, therefore, is necessary to the Lion to perceive his prey; and he creeps towards it with a certainty which nothing but this distinct nocturnal vision could give.

“Every one must have observed what are usually called the *whiskers* on a cat's upper lip. The use of these in a state of nature is very important. They are organs of touch. The slightest contact of these whiskers with any surrounding object is felt most distinctly by the animal, although the hairs are themselves insensible. They stand

* That part of the throat which forms the upper part of the *trachea* (wind-pipe). It is composed of five cartilages. The protuberance of the larynx in the human subject is popularly called “Adam's apple.”

† “The size of the larynx is proportionate to the strength of the sounds which the animals utter. The absolute size of the larynx of the whale and the elephant is the largest; but relatively the larynx of the Lion has a still greater circumference.”—Notes to Blumenbach's *Comp. Anat.*, by Lawrence and Coulson. 1827.

each side, in the Lion, as well as in the common that, from point to point, they are equal to the of the animal's body.

we imagine, therefore, a Lion stealing through a cove-wood in an imperfect light, we shall at once see the these long hairs. They indicate to him, through est feeling, any obstacle which may present itself passage of his body ; they prevent the rustle of and leaves, which would give warning to his prey vere to attempt to pass through too close a bush ;— as, in conjunction with the soft cushions of his feet, able him to move towards his victim with a stillness r even than that of the snake, who creeps along the and is not perceived till he has coiled round his

e have thus gone through several of the most striking-uliarities of the Lion's structure. His conformation ently designed for the destruction of animal life. ve noticed the roar by which he rouses his prey ; e by which he sees it in the dark ; the sensitive rs, and the cushioned foot, by which he creeps upon out noise ; the great physical force by which the upon the victim is performed, and the provision t any injury from the exercise of that force ; the ful instrument with which he strikes his prey ; the the jaw, the prickly tongue, by which he is enabled sfy his appetite. All these properties form a part condition of his existence ; and it should be borne d that the very nature of his food has a tendency to ve his character unaltered ; to support his enormous lar strength ; to perpetuate his sanguinary habits. tudy of Comparative Anatomy, from which science ve collected this account of some of the peculiarities : structure of the *Lion*, constantly presents objects of

similar interest. Galen, when studying human anatomy, was so struck with the perfection with which all the parts of the human arm and hand are adapted to one another that he composed a hymn to the Deity, expressing his admiration of a piece of so much excellence. The more we extend our researches into the animal kingdom, the more shall we be struck with this extraordinary adaptation of the parts of living bodies to their respective uses; and more shall we be convinced, by our own imperfect knowledge, of the perfection of that Wisdom and Power, whose works are as marvellous as they are unbounded.

THE PUMA.



THE Puma, Cougar, or American Lion, is from four to six feet long, but more commonly of the former size, and has a tail of half that length, which has not, like that of the Lion, a terminating brush of hair: neither has the Puma mane. Indeed, his name of Lion could only have been

by careless or unscientific observers, as his whiteness of colour is the sole point of resemblance he has to the king of beasts. He has a small head, a broad and rather obtuse muzzle, and a neck in proportion, is slenderer and less elevated than his more dignified namesake. "The upper and lower body," says Mr. Bennett, "are of a bright silvery white, the tawny hairs being terminated by whitish tips, and on the inside of the limbs he is nearly wholly so on the throat, chin, and belly. The head has an irregular mixture of black and white on the outside of the ears, especially at the base, the muzzle from which the whiskers take their origin, and the extremity of the tail, are black." The fur is white with spots of a darker hue, which are visible in lights, and disappear when the animal is in shadow. Both the sexes are of the same colour.

He was once spread over the whole wide extended new world, from Canada to Patagonia. The progress of civilization has, however, circumscribed his range, and has rooted him out in many places. Notwithstanding his size and strength, he is cowardly; and, like the leopard, he is sanguinary. If he find a flock of unprotected animals, he will destroy the whole, merely for the luxury of sucking their blood. As he is much timid and little swift, and in the South frequents the open plains, he generally falls a prey to the hunter, who pursues him with the unerring

to find its prey, the Puma crawls softly on his belly

is now common, in any part of the United States, except the Rocky Mountains. It is usually called the panther, or painter by the people. It is also called the eatamount.

through the shrubs and bushes, conceals itself in ditches or assumes a fawning appearance. As soon, however, as it can reach its victim, it leaps on its back by one bound and soon rends it to pieces. Molina tells us that, in Chile, where the husbandmen tether their horses in the fields by pairs, the Puma kills and drags one away, and compels the other to follow by occasionally striking it with his paw. All animals are not thus easily vanquished. Asses defend themselves with their heels, and are often victorious; and cows form themselves into a circle round their calves, turning their horns towards the assailant, and not unfrequently destroy him. Even a woman or a child can put him to flight. When hunted with dogs, however, and cut off from his retreat to a rock or a tree, he places himself under the trunk of a large tree, and fights furiously.

The Puma is easily tamed, and in captivity becomes tractable, and even attached. It loves to be noticed and caressed, expresses its pleasure by purring, will follow its owner about like a dog, and has been known to suffer children to ride upon its back.

The following anecdotes are from Godman:—

“Two hunters, accompanied by two dogs, went out in quest of game near the Catskill mountains. At the foot of a large hill, they agreed to go round it in opposite directions, and when either discharged his rifle, the other was to hasten towards him to aid in securing the game. Soon after parting, the report of a rifle was heard by one of them, who, hastening towards the spot, after some search, found nothing but the dog, dreadfully lacerated and dead. He now became much alarmed for the fate of his companion, and while anxiously looking around, was horror-struck by the harsh growl of a Cougar, which he perceived on a large limb of a tree, crouching upon the body of his friend, and apparently meditating an attack.

Instantly he levelled his rifle at the beast, fortunate as to wound it mortally, when it fell along with the body of his slaughtered com-dog then rushed upon the wounded Cougar, the blow of its paw laid the poor animal dead. The surviving hunter now left the spot, and joined with several other persons, when they placed the Cougar extended near the dead bodies of the faithful dogs."

At the close of the late war, a merchant of Piquette, received a considerable sum of money in which made it appear of still greater magnitude suspicious looking persons who were present received. Mr. Herse being unarmed, was that an attempt would be made to rob him on the ground, and expressed his apprehensions. The fellow traveller, who was also unprovided with consequence, they resolved not to go to the end, but to pass the night in the woods with- out, turning their horses loose, they lay down on the leaves. In the night they were hearing the horses snort, as they are apt to do in the presence of Indians, and shortly after they were made several bounds through the woods, as if they had unsuccessfully attempted to catch them. As time had elapsed they both distinctly heard supposed to be a man crawling towards them on hands and feet, as they could hear first one hand extended and pressed very gently on the leaves, making a noise, then the other, and finally the same in like manner and with equal care. When they felt that this felonious visiter was within about ten feet of them, they touched each other, sprang up suddenly, and rushed to some distance through the

woods, where they crouched and remained without further disturbance. A short time after they heard the horses snorting and bounding furiously through the woods, but they did not venture to arise until broad day-light, being still ignorant of the character of their enemy.

“When sufficiently light to see, by climbing a sapling they discovered the horses at a considerable distance on the prairie. On approaching them, it was at once evident that their disturber had been nothing less than a Cougar. It had sprung upon the horses, and so lacerated with its claws and teeth their flanks and buttocks, that with the greatest difficulty were they able to drive the poor creatures before them to Shane’s. Several other instances of annoyance to travellers had happened at the same place, and Shane believed by the same Cougar.”

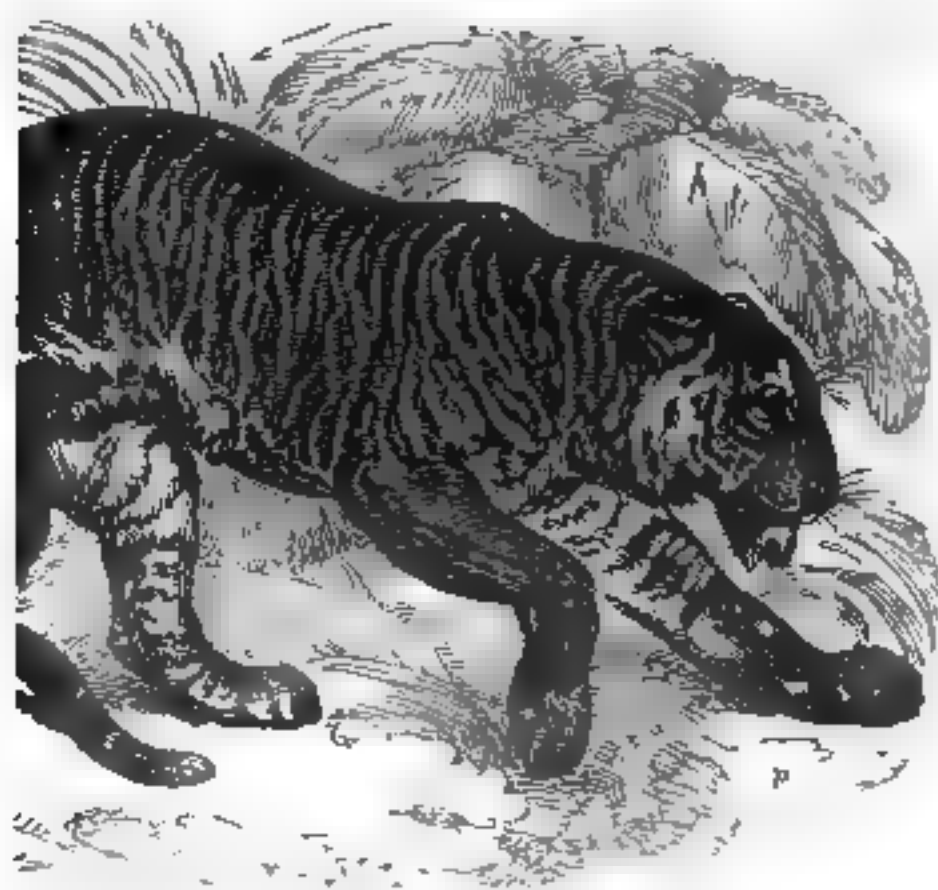
THE TIGER.

In the class of carnivorous animals the lion is the foremost. Immediately after him follows the Tiger; which, while it possesses all the bad qualities of the former, seems to be a stranger to his good ones. To pride, to courage, to strength, the lion adds greatness, and sometimes, perhaps, clemency; while the Tiger, without provocation, is fierce without necessity, is cruel. Thus it is throughout all the classes of nature, in which the superiority of rank proceeds from the superiority of strength. The first class, the sole masters of all, are less tyrannical than the inferior classes, which, denied so full an exertion of authority, abuse the powers intrusted to them.

More, therefore, than even the lion, the Tiger is an object of terror. He is the scourge of every country which he inhabits. Of the appearance of man, and of all his hostile weapons, he is fearless; wild animals as well as tame ones fall sacrifices before him; the young elephant

he sometimes attacks; and sometimes, with an audacity, he braves the lion himself.

of the body usually corresponds with the disposition of the animal. The Tiger, with a long, with limbs too short, with a head uncovered, looks ghastly and haggard, has no characteristics of the basest and most insatiable cruelty. For



has nothing but a uniform rage, a blind fury: red, so undistinguished, that he frequently devours progeny, and, if she offers to defend them, devours the dam herself.

it for the rest of nature that this animal is not found that the species is chiefly confined to the provinces of the East. The Tiger is found in Siam, and in Bengal.

has killed a large animal, such as a horse or does not choose to devour it on the spot, fear-disturbed; and in order to feast at his ease, he

carries off his prey to the forest, dragging it along with such ease that the swiftness of his motion seems scarcely retarded by the enormous load he sustains.

To give a still more complete idea of the strength of this terrible creature, we shall quote a passage from Father Tachard, who was an eye-witness of a combat of one Tiger against two,¹ and even three, elephants at Siam. For this purpose, the king ordered a lofty palisade to be built of bamboo cane, about a hundred feet square; and in the midst of this were three elephants appointed for combating the Tiger. Their heads and part of their trunks were covered with a kind of armour like a mask, which defended that part from the assaults of the fierce animal with which they were to engage. As soon, says this author, as we were arrived at the place, a Tiger was brought forth from his den, of a size much larger than we had ever seen before. He was not at first let loose, but held with cords so that one of the elephants approaching gave him three or four blows with his trunk on the back, with such force that the Tiger was for some time stunned, and lay without motion, as if he had been dead. As soon, however, as he was let loose, and at full liberty, although the first blow had greatly abated his fury, he made at the elephant with a loud shriek, and aimed at seizing his trunk. But the elephant, wrinkling it up with great dexterity, received the Tiger on his great teeth, and tossed him up into the air. This so discouraged the furious animal, that he no more ventured to approach the elephant, but made several circuits round the palisade, often attempting to fly at the spectators. Shortly after, a second, and then a third elephant were sent against him, and they continued to strike him so terribly with their trunks, that he once more lay dead; and they would certainly have killed him, had not a stop been put to the combat.

er, of which Father Gouie has communicated to the Academy of Sciences an anatomical description, by the Jesuit Fathers at China, seems to belong to a new species, as does also that which the Portuguese distinguished by the name of *Royal Tiger*. Dellon says, in his Travels, that there is no country of which Tigers so much abound as Malabar; that the species are numerous, but that the largest of all which the Portuguese call the *Royal Tiger*, which is the most common, and is as large as a horse.

The scarcity of the Tiger has always been much rarer, and less generally diffused, than that of the lion. Incessant, nevertheless, the Tigress produces four or five young ones at a birth. From her nature she is very fond of her young; but when surrounded with her infant and in the smallest danger of losing them, her fury becomes extravagant. To oppose the attacks of her den, she braves every danger. On the approach of the spoiler, she pursues the spoiler with an enmity that is insatiable; and he, contented to lose a part in order to save the rest, is frequently obliged to drop one of her cubs. When she immediately returns to her den, and again finds her young: he then drops another; and, by the time he is returned with that, he generally escapes with the remainder.

Should her young be torn from her entirely, she cries she expresses her agony, and her howls follow the captor to the very town, or ship, in which they may have taken refuge, and dares him, as it were, to follow her.

Many of these animals are much esteemed all over the East, particularly in China; the Mandarines cover their robes with the skin of the tiger, and convert the skins into coverings for cushions in winter. The Indians

eat the flesh of the Tiger, and find it neither disagree nor unwholesome.

Such is the character which Buffon and many other uralists have given to the Tiger, and it certainly is not culated to prejudice us in his favour. More recent wr have, however, and apparently with justice, endeavor to remove a part of the odium which has been thrown on him. Mr. Bennett, the scientific and acute author the description of the animals in the Tower Menag and the Zoological Gardens, has laboured with much oquence to raise the Tiger in the scale of estimation. "Closely allied to the lion (says he), whom he resembles in power, in external form, in internal structure, in zoical character, in his prowling habits, and in his sanguary propensities, the Tiger is at once distinguished from that king of beasts, and from every other of their common genus, by the peculiar marking of his coat. The ground which exhibits in different individuals various shades of yellow, he is elegantly striped by a series of transverse black bands or bars, which occupy the sides of his head, neck, and body, and are continued upon the tail in the form of rings, the last of the series uniformly occupying the extremity of that organ, and giving it a black tip of greater or less extent. The underparts of his body and the inner sides of his legs are almost entirely white: he has no mane, and his whole frame, though less elevated than that of the lion, is of a slenderer and more graceful make. His head is also shorter, and rounded.

"Almost in the same degree that the lion has been exalted and magnified, at the expense of his fellow beasts, has the Tiger been degraded and depressed below his natural level. While the one has been held up to admiration, as the type and standard of heroic perfe

ther has, with equal capriciousness and disregard of the
 : and intimate relationship subsisting between them,
 looked upon by mankind in general with those feel-
 of unmingled horror and detestation which his char-
 · for untameable ferocity and insatiable thirst of blood
 so well calculated to inspire. It requires, however,
 little consideration to teach us that the broad dis-
 ion, which has been drawn, cannot by possibility
 ; and the recorded observations of naturalists and
 ellers, both at home and abroad, will be found am-
 sufficient to prove that the difference in their char-
 s and habits, on which so much stress has been laid,
 reality as slight and unessential as that which ex-
 in their corporeal structure.

Inquestionably the Tiger has not the majesty of the
 ; for he is destitute of the mane, in which that maj-
 chiefly resides. Neither has he the same calm and
 ified air of imperturbable gravity which is at once so
 ing and so prepossessing in the aspect of the lion.
 on the other hand, it will readily be granted, that
 ie superior lightness of his frame, which allows his
 ral agility its free and unrestricted scope, and in the
 eful ease and spirited activity of his motions, to say
 ing of the beauty, the regularity, and the vividness
 is colouring, he far excels his competitor, whose gi-
 bulk and comparative heaviness of person, added to
 dull uniformity of his colour, detract in no small de-
 from the impression produced by his noble and ma-
 : bearing.

n comparing the moral qualities of these two formi-
 : animals, we shall also find that the shades of dif-
 ice, for at most they are but shades, which distin-
 a them, are, like their external characteristics, pretty
 lly balanced in favour of each. In all the leading fea-

tures of their character, the habits of both are essentially the same. The Tiger, equally with the lion, and in common indeed with the whole of the group to which he belongs, reposes indolently in the security of his den, until the calls of appetite stimulate him to look abroad for food. He then chooses a convenient ambush, in which to lie concealed from observation, generally amid the underwood of the forest, but sometimes even on the branches of a tree, which he climbs with all the agility of a cat. In this secret covert he awaits with patient watchfulness the approach of his prey, upon which he darts forth with an irresistible bound, and bears it off in triumph to his den. Unlike the lion, however, if his first attack proves unsuccessful, and he misses his aim, he does not usually slink sullenly back into his retreat, but pursues his victim with a speed and activity which is seldom baffled even by the fleetest animals.

“It is only when this close and covert mode of attack has failed of procuring him the necessary supply, that, urged by those inward cravings, which are the ruling impulse of all his actions, he prowls abroad under the veil of night, and ventures to approach the dwellings of man, of whom he does not appear to feel that instinctive awe which the lion has been known so frequently to evince. But even on such occasions, and although impelled by the strong stimulus of famine, he is in general far from unmindful of his own security; but creeps slowly along his silent path with all the stealthy caution so characteristic of the feline tribe. Occasionally, however, when the pangs of hunger have become intolerable, and can no longer be controlled even by the overpowering sway of instinct, he will boldly advance upon man himself in the open face of day, and brave every danger in the pursuit of that object which, to the exclusion of every other sentiment, appears under such circumstances wholly to engross his faculties.

"It is evident then that in the general outline of his habits, and even in most of the separate traits by which his character is marked, he differs but little from the lion. His courage, if brute force stimulated by sensual appetite can deserve that honourable name, is at least equal; and as for magnanimity and generosity, the idea of attributing such noble qualities to either is in itself so absurd, and is so fully refuted by every particular of their authentic history, that it would be perfectly ridiculous to attempt a comparison where no materials for comparison exist."

"Endowed with a degree of force, which the lion and the elephant alone can equal, he carries off a buffalo in his tremendous jaws, almost without relaxing from his usual speed. With a single stroke of his claws he rips open the body of the largest animals; and is said to suck their blood with insatiable avidity. Of the correctness of the latter statement, at least in its full extent, there is however strong reason to doubt. The Tiger does not, according to the most credible accounts, exhibit this propensity to drinking the blood of his victims in any greater degree than the rest of his carnivorous and bloodthirsty companions. In this, as in other instances, fear has drawn largely on credulity, and the simple and sufficiently disgusting fact has been amplified and exaggerated with all the refinements upon horror which the terrified imagination could suggest.

"In making these observations it is far from our intention to become the apologists of this ferocious beast: our object is simply to place him in the rank which he deserves to hold, on a level with those animals with whom Nature has decreed that he should be associated no less in character than in form. In his wild and unrestricted state, he is unquestionably one of the most terrible of the living scourges, to whose fatal ravages the lower animals, and even man *himself*, are exposed. But in captivity, and es-

pecially if domesticated while young, his temper is compliant, his disposition equally docile, and his manner of character equally susceptible of amelioration, with that of any other animal of his class. All the stories that have been so frequently reiterated, until they have at last passed current without examination as accredited facts of his intractable disposition and insensibility to the treatment of his keepers, towards whom it is alleged he never exhibits the slightest feelings of gratitude, have been proved by repeated experience to be utterly false and groundless. He is tamed with as much facility, and is completely, as the lion; and soon becomes familiar with those who feed him, whom he learns to distinguish from others, and by whom he is fond of being noticed and caressed. Like the cat, which he resembles so closely in all his actions, he arches his broad and powerful back beneath the hand that caresses him; he licks his face, and smooths himself with his paws; and purrs in the same mild and expressive manner when he is particularly pleased. He remains perfectly quiet and undisturbed, unless he is hungry or irritated, and passes the greatest part of his time in listless repose. His roar is nearly similar to that of the lion, and, like his, is by no means to be regarded as a symptom of anger, which he announces by a short, shrill cry, approaching to a scream."

That the Tiger is not irreclaimably ferocious, and that he is capable not merely of a capricious and transient liking, but of an enduring attachment, the following anecdote affords an extraordinary and convincing proof. "A beautiful young Tiger, brought in the Pitt East Indiaman from China, in the year 1790, was so far domesticated as to admit of every kind of familiarity from the people on board the ship. It seemed to be quite harmless, and was as playful as a kitten. It frequently slept with the sailors."

mmocks ; and would suffer two or three of them to their heads on its back as upon a pillow, while it stretched out upon the deck. In return for this service, it would, however, now and then steal their meat : one day stolen a piece of beef from the carpenter who wed the animal, took the meat out of its mouth, and severely punished it for the theft : which punishment it suffered with all the patience of a dog. It would frequently run on the bowsprit ; climb about the ship like a cat ; perform many other tricks, with an agility that was astonishing. There was a dog on board, with which it frequently played in the most diverting manner imaginable. This animal was taken on board the ship when only a month or six weeks old, and arrived in England before it had quite completed its first year. On its arrival it was presented to the king, and was afterwards deposited in the Tower of London. It even there continued perfectly good natured, and was in no instance known guilty of any savage or mischievous tricks.

In the year 1801, one day after this Tiger had been kept in the keeper put into the den to him, a small, rough-haired terrier puppy, a female. The beast suffered it to be uninjured, and soon afterwards became so much attached to it, as to be restless and unhappy whenever the puppy was taken away to be fed. On its return the Tiger joyfully expressed the greatest symptoms of delight, and welcomed its arrival by gently licking over every part of its body. In one or two instances, the terrier was taken into the den, by mistake, during the time the Tiger had been kept. The dog sometimes ventured to eat with him, but the Tiger generally appeared dissatisfied with this liberty. After a residence with the Tiger of several months, the terrier was removed to make way for a little female mastiff. It was, however, thought advisable, before

the terrier was taken away, to shut up the mastiff for three or four days among the straw of the Tiger's bed, to take off, if possible, any smell that might be offensive to the animal. The exchange was made soon after the animals had been fed; the Tiger seemed perfectly satisfied with his new companion, and immediately began to lick it, as he had before done the terrier. The dog seemed at first in considerable alarm with so formidable an inmate, but in the course of the day he became perfectly reconciled to his situation. This diminutive creature the Tiger would suffer to play with him, with the greatest good nature. I have myself, says Mr. Bingley, seen it bark at him and bite him by the foot and mouth, without his expressing the least displeasure. When the dog in its frolic, seized his foot, he merely lifted it up out of its mouth, and seemed otherwise heedless of its attacks.

"Strange dogs were several times put into the Tiger's den after his feeding, and he in no instance attempted to injure them. Mr. Cross, the present keeper of Exeter 'Change, and who formerly had the care of the animals in the Tower, informed me that he could himself have ventured in safety into the den. The ship-carpenter, who came over with the Tiger, came to the Tower to see him. The animal, though they had been separated more than two years, instantly recognized a former acquaintance, rubbed himself backward and forward against the grating of his den, and appeared highly delighted. Notwithstanding the urgent request that he would not expose himself to so much danger, the man begged to be let into the den, and with so much entreaty, that he was at last suffered to enter. The emotions of the animal seemed roused in the most grateful manner. He rubbed himself against him, licked his hands, fawned upon him like a cat, and in no respect attempted to injure him. The man remained there

THE TIGER.

hours; and he at last began to fancy there was some difficulty in getting out alone. Such was the conduct of the animal towards his former friend, and he kept close to his person, as to render his escape no less so easy as he had expected. With some effort, he got the Tiger beyond the partition of the cage, and the keeper watching his opportunity, sprang forward, and separated them."

Many instances which we could adduce where man has fallen victims to these animals, we may cite that related by Dr. Shaw, where the son of Sir Robert Ker was, in 1792, attacked by a Tiger, accompanied by a Tigress, in such a manner as caused his death twenty-four hours. This animal lies in ambush for his prey, and not unfrequently destroys his own young. He forms his ambush on the borders of rivers and swamps, where other animals are compelled to repair, and where the heat of the climate, for their drink; but his velocity is so great, that few creatures escape inevitable destruction.

Animals are peculiar to Asia. They are general in the East, of Bengal, the kingdoms of Siam, Tonquin, Sutchuan, China, also the countries north of China, the islands of those of Southern Asia. Buffon says they are not found in Southern Africa; but Mr. Pennant observes, that he could find no authority for his assertion, inasmuch as animals called Tigers by Ludolphus and Kolben were the leopard or panther. The same gentleman observes, that this animal is by an improper misnomer called a Tiger in Africa and America. The natives of Sumatra are superstitiously taught with the belief that they are animated by the spirits of their ancestors, that they seldom destroy

THE JAGUAR,

WHICH is sometimes called the American Tiger, is one of the most formidable animals of the New World. He is to be found in the southern division of America, from Paraguay to Guiana; but he does not appear to inhabit to the northward of the isthmus of Darien. Even in the south the race is gradually growing more rare, in consequence of the double temptation to destroy him, which is offered by the desire of getting rid of a beast so destructive to the flocks, and by the high price which is obtained for his skin.

More robust and more clumsy than the leopard, he is also much superior in size, as he often measures four or five feet from the nose to the root of the tail. His head is larger and rounder than the leopard's, his limbs are shorter, and his tail is of such a length as only to allow the tip to trail on the ground when the animal stands erect. Above the line of the eyes, the profile is also more prominent.

"These differences of form (says Mr. Bennett) are accompanied by differences in colour and markings equally decisive. The general appearance is at the first glance the same in both; but the open roses of the leopard are scarcely more than half the size of those of the Jaguar, and they all enclose a space of one uniform colour, in which, unless in some rare and accidental instances, no central spots exist, while in the latter animal most of those which are arranged along the upper surface near the middle line of the back are distinguished by one or two small black spots enclosed within their circuit. The middle line itself is occupied in the leopard by open roses intermixed with a few black spots of small size and roundish form; that of the Jaguar, on the contrary, is marked by one or two regular longitudinal lines of broad elongated deep black patches

mes extending several inches in length, and occasionally forming an almost continuous band from between shoulders to the tail. The black rings towards the tip of the latter are also more completely circular than in the 1."



Jaguar is a solitary animal, residing in forests, especially near large rivers. He is an excellent swimmer. D'Arbigny tells us, partly from personal observation, that, after he had destroyed a horse, he dragged the body sixty yards and then swam with it over a broad and deep river. He is equally expert at climbing. "I have seen (says M. D'Arbigny) in the forests of Guiana, the prints left by the animal on the smooth bark of a tree from forty feet in height, measuring about a foot and a half in circumference, and clothed with branches near its summit. It was easy to follow with the eye the efforts the animal had made to reach the branches: all his talons had been thrust deeply into the body of the tree, he had met with several slips, but he had always regained his ground, and, attracted no doubt by some object of prey, had at length succeeded in gaining the very top."

Jaguar lies in ambush for his prey, on which he

pounces suddenly, and his great muscular strength enables him instantly to bear it to the ground. Man he does not often attack, and never but by stealth. While M. Sonini was travelling in Guiana, his party was closely dogged for three nights by one of these animals, which eluded all their attempts to shoot it, and would, doubtless, have carried off any individual who might have unguardedly exposed himself.

Ferocious as he is in his wild state, the Jaguar, when captive, becomes tame and even mild, and is particularly fond of licking the hands of those with whom he is familiar.

The taking of the Jaguar forms a portion of the warlike features distinguishing the Indians of South America, particularly the Laneros or men of the plains. One inducement a Laneros has in pursuing the Jaguar is the honour of the feat—for the value of its skin and the little depredations it commits on the flocks, would never, I apprehend (says a late traveller in South America) induce him to risk a single combat with such fierce animals; but there is a stronger stimulus, viz. that killing seven Jaguars, or six tigers, will give him the title of *guapo*, or warrior, and the privilege of choosing the fattest virgin for his companion in the tribe; for with them the lady who is most *en bon point* is most beautiful. This alone is a sufficient inducement; and they endeavour to complete their task as early as the age of seventeen. At the approach of the breeding season, they watch with great assiduity the battles that take place between the male and the female, as this is a sure indication of her littering, not wishing to have the male know where she deposits the cubs, as some naturalists assert that he eats them; others that he hugs them to death. However this be, she never suffers him to approach the jungle, if I may be allowed to call it so, until they are

in after her. During this period he awaits her most tender solicitude, and even brings her a f of his prey. He is seen hovering instinctively place where she is crouched at noontide. When os perceives this, he envelopes himself in a Ja- n, and approaches him, taking good care to have in his favour, as the Jaguar's keen scent would over the imposition. Even this sagacity and in- y think they have got over, by burning plaintain as to take away for hours any scent which the ody has; though this is probably a mere fancy. s the Laneros perceives the Jaguar, he runs from fours, and endeavours to mimic the whining cry st, which by some is said to be like a cat, or like ching in a sty; the latter is what I would com- to, as I have seen them mustering by night pre- untung. As soon as the male perceives him, he wards him; when the Laneros dexterously throws (the lasso) over him, and soon strangles him. s he wounds him with his lance, and then a san- onflict takes place. As the Laneros has his left ound rcund with tanned horse skin, impervious to r's tusks, he presents his left hand; as soon as r seizes it, he is stabbed with a long knife, which isses the heart, as the principal excellence of a killing the beast with as few stabs as possible. s he dispatches the male, the female becomes an . Sometimes the Laneros, when their numbers lete, will, to show their dexterity and address, : Jaguar into a defile, when the man uncovers s himself; the Jaguar endeavours to retreat, but ted by other Indians, who scare him with fire- r they can produce fire by rubbing two pieces of ether, as quick as if with tinder. In this manner

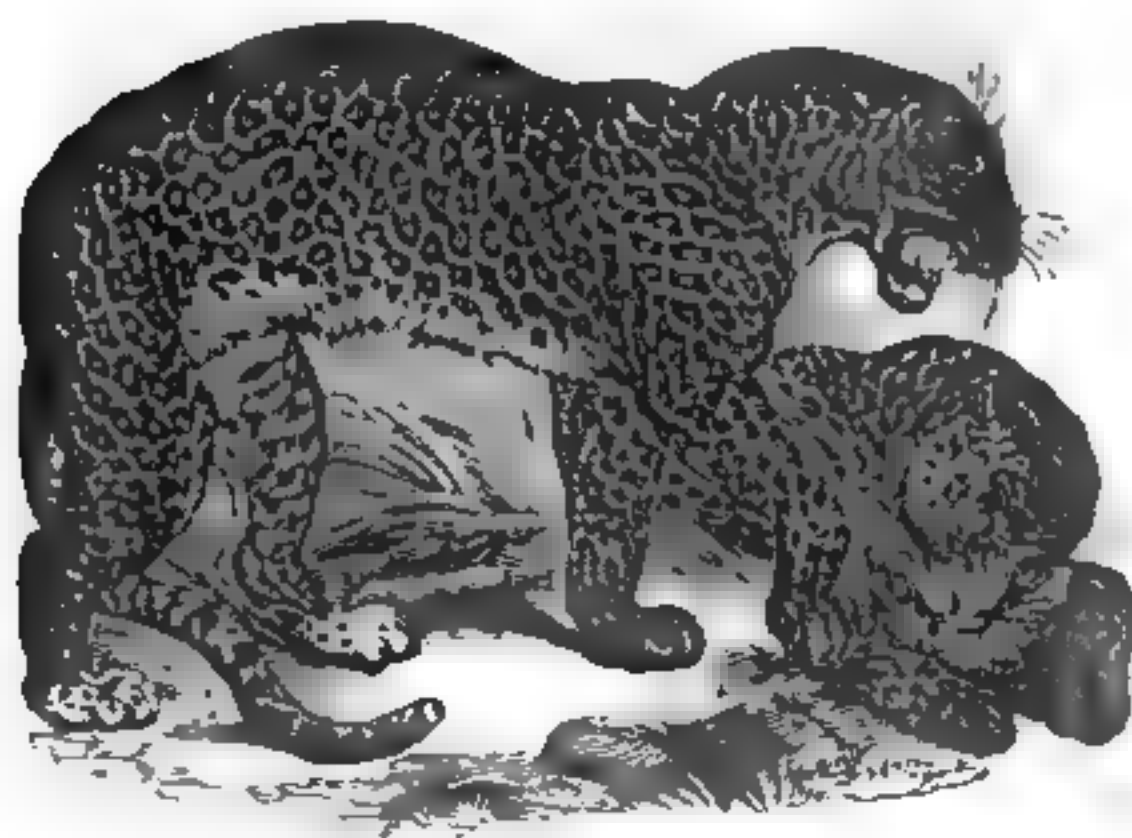
they worry him with dogs, while they keep him at bay until the women arrive to witness their cruelty. As the Jaguar gets frantic, he endeavours to bite at every thing near him; as often as the creature opens his mouth he is sure to have a burning torch rammed into his throat, until madness exhausts him, and he is no longer able to close his jaws; then the women and boys descend from their high positions, chop off his paws, hammer out his teeth, and often skin him alive, while the boys are smeared with the blood, in order to make them good warriors, and the mothers take delight in seeing the animosity they have to the creature, even when no longer able to do any injury. As to the female Jaguar, they have only to come near her crouching place to provoke a quarrel, as she will often attack them before they are within two hundred yards of it: in her they sometimes find a more formidable enemy than in the male, although much inferior in point of size and strength, but more subtle and crafty: their bite is difficult to heal, and the Laneros think a wound from a Jaguar a great disgrace; so much so that a young aspirant for the title of *guapo*, who had the misfortune of being wounded in a rencontre, was so much ashamed of acknowledging it, that he suffered a mortification sooner than expose the wound, although he was well aware the women possessed a salve that would cure him.

THE BLACK TIGER.

THIS animal is a native of S. America, and is generally considered as a very ferocious and destructive beast. It is about the size of a heifer of a year old, and is entirely of a deep brownish black colour on the upper parts, and of a pale gray or whitish hue underneath: the upper lip and paws are also whitish, but the tail is of the same dusky appearance as the body.

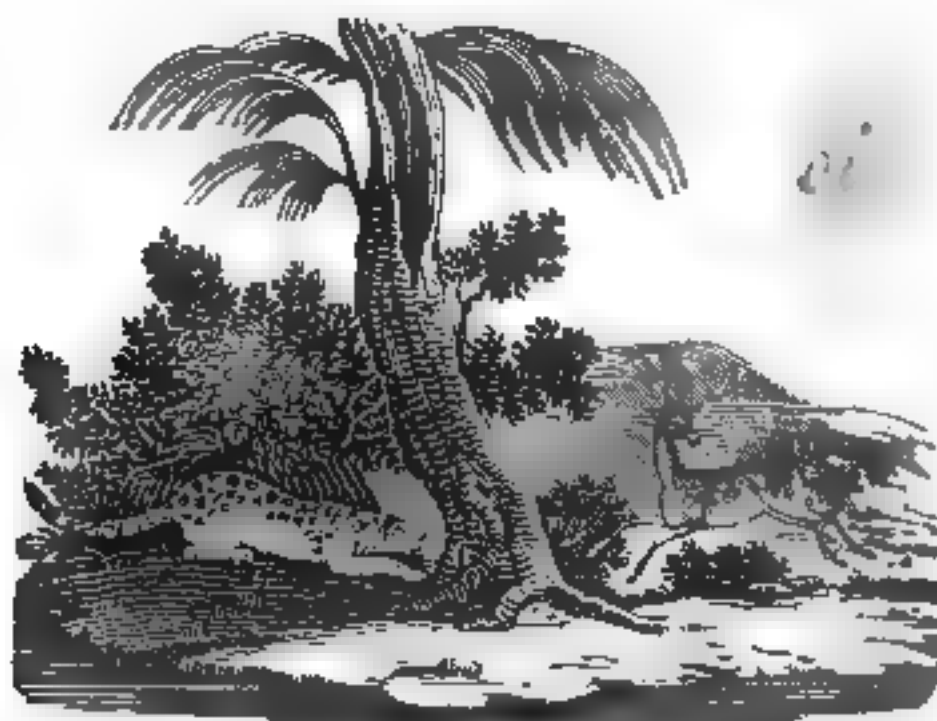
It is supposed to be a variety of the Jaguar. M. de la lorde says, the Black Tigers frequent the sea-shore, and eat the eggs there deposited by turtles. They also devour lizards, fish, and even alligators; and in order to catch the latter, they lie down on their belly at the edge of a river, strike the water to make a noise, and when the Alligator raises its head above the surface, the tiger darts his claws into the eyes, and usually succeeds in dragging him on shore. The black tiger sometimes feeds on the buds and tender leaves of the Indian fig; and they are said to be excellent swimmers.

THE LEOPARD.



This formidable and sanguinary animal is found nearly throughout the whole of Africa, and in eastern and southern Asia. He usually measures about three feet in length, exclusive of the tail, but sometimes reaches four feet. His appearance indicates his natural disposition. He has a restless eye and a sinister countenance, and all his motions

are hasty and abrupt. In rapidity, agility, and precision of motion, he is unrivalled by any other animal; an advantage which he owes to the strength of his muscles, the suppleness of his joints, the extreme pliability of his spine, the greater lateral compression of his body, and the slender proportions of his limbs. His prey, on which he darts



from his hiding place, and even pursues up the trees, consists of antelopes, monkeys, and the smaller quadrupeds. Usually, he shuns man, but when closely pressed, he turns upon the hunter, and hunger will drive him to attack, though by stealth, the human race.

“Even among the cats (says Mr. Bennett) he is remarkable for extreme sleekness and excessive agility. He is well distinguished from all the other species by the vividness of his colouring and the beauty of his markings. These consist of numerous rows of large rose-like spots passing along his sides, each formed of the confluence of several smaller black spots into an irregular circle enclosing a fawn coloured centre, upon a general ground colour of light yellow. On his head, neck, and limbs, and the central line of his back, the spots run into one another so

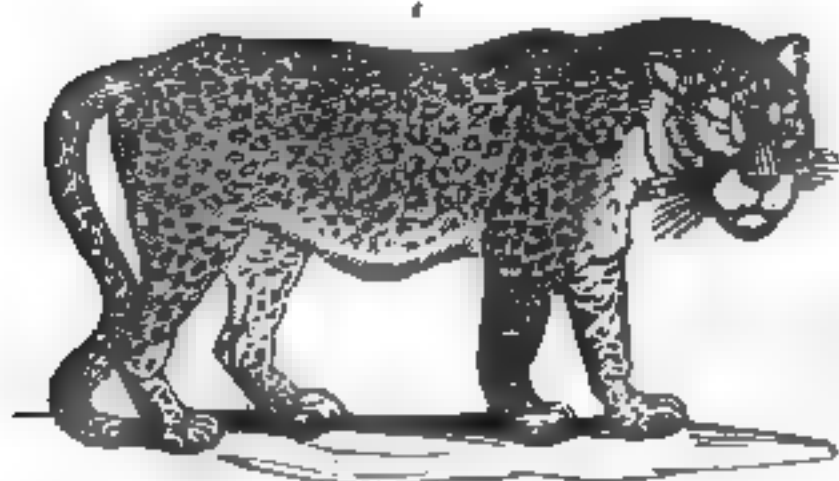
s to form full patches of smaller size than the
 nd without central yellow. The under parts
 us is usual in most quadrupeds, become grad-
 hter hue, the throat, chest, and abdomen be-
 and delicate white. His tail is equal in length
 body excluding the head ; and is marked by
 n of the open roses of the sides, which be-
 s its extremity separated in such a manner as
 the upper surface with partial rings of black
 with white. The whiskers are long and white,
 d in a series of black lines which traverse his

y, the Leopard has been sometimes brought to
 le degree of tameness. It is not, however,
 rust them ; for their original nature is now and
 ctedly displayed. The female Leopard in the
 remely tame, suffers herself to be patted by the
 licks his hands. She has a curious propensi-
 y such articles of dress as she can seize ; and
 pieces hundreds of parasols, umbrellas, muffs,
 hich the owners unwarily suffered to come
 of her sudden and agile spring.

THE LESSER LEOPARD.

to Mr. Pennant, who is the only writer that
 ed it, this variety is not half so large as the
 noticed. It was of a bright yellow colour,
 the common Leopard, in circles ; on each side
 lip there was a great black spot ; the face was
 a black, the chin white, and the breast marked
 pots, as also the belly, upon a white ground ;
 shorter than that of the common Leopard, and
 vards a point. It was a native of the East In-
 ate of the Tower for some time, and seemed a
 tured creature.

THE PANTHER



RESEMBLES the tiger in its habits, and the leopard in skin. Like the tiger it has an insatiable thirst of blood and an untameable ferocity; like the leopard its skin spotted, but is less beautiful than the skin of that animal. It seems, in truth, only a large variety of the leopard. Panther is usually more than six feet long, independent of the tail, which is about three feet in length. In Africa one was killed by Major Denham, which was more than eight feet in length. His hair is short, sleek, and smooth, and his colour is, in general, of a bright tawny yellow elegantly marked with black spots, disposed in circles of four or five each, with a single spot in the centre: his chest and belly are white. He has short and pointed ears, fierce restless eyes, a strong harsh cry, and a savage aspect. His rapid are his movements that few animals can escape, and such is his agility that he climbs trees in pursuit of his prey, and is sure of seizing his victim. The flesh of animals is said to be his favourite food, but when pressed by hunger he makes his attacks without discrimination. In the time of the Romans, Panthers appear to have been very numerous, and at present the species is said to extend from Barbary to the remotest parts of Guinea.

must be observed, that it is very doubtful whether the ther has ever yet been represented in any drawing. Eminck is of opinion that all the nominal representations of panthers are really those of leopards.

Major Denham in his travels in Africa furnishes us with the following description. "During the latter part of the day, while riding on in front with Maramy the sheikh's son, who had accompanied me from Kouka, and who seemed to attach himself more closely to me as we approached danger, we had started several animals of the leopard species, who ran from us so swiftly, twisting their long tails in the air, as to prevent our getting near them. I, however, now started one of a larger kind, which Maramy assured me was so satiated with the blood of a ro, whose carcass we found lying in the wood, that he could be easily killed. I rode up to the spot just as a



roaa had planted the first spear in him, which passed through the neck, a little above the shoulder, and came

down between the animal's legs ; he rolled over, bro the spear, and bounded off with the lower half in his bo Another Shouaa galloped up within two arms' length, a thrust a second spear through his loins ; and the sava animal, with a woful howl, was in the act of springing his pursuer, when an Arab shot him through the head w a ball, which killed him on the spot.

It was a male Panther (zazerma) of a very large size, a measured, from the point of the tail to the nose, eight f two inches ; the skin was yellow, and beautifully mark with orbicular spots on the upper part of the body, wh underneath, and at the throat, the spots were oblong and regular, intermixed with white. These animals are found great numbers in the woods bordering on Mandara : the are also leopards, the skins of which I saw, but not in gr numbers. The Panthers are as insidious as they are cru they will not attack any thing that is likely to make resi ance, but have been known to watch a child for hou while near the protection of huts or people. It will of spring on a grown person, male or female, while carry a burthen, but always from behind : the flesh of a child of a young kid it will sometimes devour ; but when any grown animal falls a prey to its ferocity, it sucks the blo alone."

The following narrative of an encounter with a Panth which is copied from the Library of Entertaining Kno ledge, will abundantly prove the formidable nature the Panther, even when the animal is not of its large size.

"I was at Jaffna, at the northern extremity of the isle of Ceylon, in the beginning of the year 1819, (says the writer), when, one morning, my servant called me an hour or two before my usual time, with "Master, master! people sent for master's dogs—tiger in the town!" No

My dogs chanced to be some very degenerate specimens of a fine species, called the Poligar dog, which I should designate as a sort of wiry-haired greyhound, without cent. I kept them to hunt jackals; but tigers are very different things: by the way, there are no real tigers in Ceylon; but leopards and Panthers are always called so, and by ourselves as well as by the natives. This turned out to be a Panther. My gun chanced not to be put together; and while my servants were doing it, the collector and two medical men, who had recently arrived, in consequence of the cholera morbus having just then reached Ceylon from the continent, came to my door, the former armed with a fowling-piece, and the two latter with remarkably blunt hog-spears. They insisted upon setting off without waiting for my gun, a proceeding not much to my taste. The tiger (I must continue to call him so) had taken refuge in a hut, the roof of which, as those of Ceylon huts in general, spread to the ground like an umbrella; the only aperture into it was a small door, about four feet high. The collector wanted to get the tiger out at once. I begged to wait for my gun; but no—the fowling-piece loaded with ball, of course), and the two hog-spears were quite enough. I got a hedge-stake, and awaited my fate with very shame. At this moment, to my great delight, there arrived from the fort an English officer, two artillery-men, and a Malay captain; and a pretty figure we should have cut without them, as the event will show. I was now quite ready to attack, and my gun came a minute afterwards. The whole scene which follows took place within an enclosure, about twenty feet square, formed, on three sides, by a strong fence of palmyra leaves, and on the fourth by the hut. At the door of this the two artillery-men posted themselves; and the Malay captain got at the top, to frighten the tiger out by worrying it,—an easy

operation, as the huts there are covered with coc leaves. One of the artillery-men wanted to go in tiger, but we would not suffer it. At last the beast saw this man received him on his bayonet, which he thrust apparently down his throat, firing his piece at the same moment. The bayonet broke off short, leaving less than three inches on the musket; the rest remained in the animal, but was invisible to us: the shot probably went through his cheek, for it certainly did not seriously hurt him, as he instantly rose upon his legs, with a loud roar and placed his paws upon the soldier's breast. At that moment, the animal appeared to me about to reach the breast of the man's face; but I had scarcely time to observe this, when the tiger, stooping his head, seized the soldier's arm in his mouth, turned him half round staggering, threw him over on his back, and fell upon him. Our dread was, that if we fired upon the tiger, we might kill the soldier; for the moment there was a pause, when his comrade attacked the beast exactly in the same manner as the first fellow himself had done. He struck his bayonet in the tiger's head: the tiger rose at him—he fired; and this third ball took effect, and in the head. The animal staggered backwards, and we all poured in our fire. He still lived and writhed; when the gentlemen with the hogs advanced, and fixed him, while some natives finished him by beating him on the head with hedge-stakes. The artillery-man was, after all, but slightly hurt: he cleaned the skin, which was very cheerfully given to him. There was, however, a cry among the natives that the tiger's head should be cut off: it was; and, in so doing, *the knife came across the bayonet*. The animal measured scarcely more than four feet from the root of the tail to the nose. There was no tradition of a tiger having been seen before; indeed this one must have either come a distance

almost twenty miles, or have swam across an arm of the sea nearly two in breadth; for Jaffna stands on a peninsula on which there is no jungle of any magnitude."

The following interesting account is from the pen of Mrs. Bowditch, and first appeared in Loudon's Magazine of Natural History.

"On perusing the First Number of the Magazine of Natural History, I find that you admit zoological anecdotes. I am, therefore, induced to send you some account of a panther which was in my possession for several months. One and another were found when very young in the forest, apparently deserted by their mother. They were taken by the king of Ashantee, in whose palace they lived several weeks, when my hero, being much larger than his companion, suffocated him in a fit of romping, and was then sent to Mr. Hutchison, the resident left by Mr. Bowditch, at Coomassie. This gentleman, observing that the animal was very docile, took pains to tame him, and in a great measure succeeded. When he was about a year old, Mr. Hutchison returned to Cape Coast, and had him led through the country by a chain, occasionally letting him loose when riding was going forward, when he would sit by his master's side, and receive his share with comparative gentleness. Once or twice he purloined a fowl, but easily gave it up to Mr. Hutchison, on being allowed a portion of something else. The day of his arrival he was placed in a small court, leading to the private rooms of the governor, and after dinner was led by a thin cord into the room, where he received our salutations with some degree of roughness, but with perfect good-humour. On the least encouragement he laid his paws upon our shoulders, rubbed his head upon us, and his teeth and claws having been blunted, there was no danger of tearing our clothes. He was kept in the above court for a week or two, and evinced no

ferocity, except when one of the servants tried to pull his food from him; he then caught the offender by the leg and tore out a piece of flesh, but he never seemed to owe him any ill-will afterwards. He one morning broke his cord, and, the cry being given, the castle gates were shut and a chase commenced. After leading his pursuers two or three times round the ramparts, and knocking over a few children by bouncing against them, he suffered himself to be caught, and led quietly back to his quarters, under one of the guns of the fortress.

By degrees the fear of him subsided, and orders having been given to the sentinels to prevent his escape through the gates, he was left at liberty to go where he pleased, and a boy was appointed to prevent him from intruding into the apartments of the officers. His keeper, however, generally passed his watch in sleeping; and Sai, as the Panther was called, after the royal giver, roamed at large. On one occasion he found his servant sitting on the step of the door, upright, but fast asleep, when he lifted his paw, gave him a blow on the side of the head which laid him flat, and then stood wagging his tail, as if enjoying the mischief he had committed. He became exceedingly attached to the governor, and followed him every where like a dog. His favourite station was at a window of the sitting-room, which overlooked the whole town; then standing on his hind legs, his fore paws resting on the ledge of the window, and his chin laid between them, he appeared to amuse himself with what was passing beneath. The children also stood with him at the window; and one day, finding his presence an incumbrance, and that they could not get their chairs close, they used their united efforts to pull him down by the tail. He one morning missed the governor, who was settling a dispute in the hall, and who, being surrounded by black people, was hidden

from the view of his favourite. Sai wandered with a dejected look to various parts of the fortress in search of him; and while absent on this errand, the audience ceased, the governor returned to his private rooms, and seated himself at a table to write. Presently he heard a heavy step coming up the stairs, and, raising his eyes to the open door, he beheld Sai. At that moment he gave himself up for lost, for Sai immediately sprang from the door on to his neck. Instead, however, of devouring him, he laid his head close to the governor's, rubbed his cheek upon his shoulder, wagged his tail, and tried to evince his happiness. Occasionally, however, the Panther caused a little alarm to the other inmates of the castle, and the poor woman who swept the floors, or, to speak technically, the *pra-pra* woman, was made ill by her fright. She was one day sweeping the boards of the great hall with a short broom, and in an attitude nearly approaching to all-fours, and Sai, who was hidden under one of the sofas, suddenly leaped upon her back, where he stood in triumph. She screamed so violently as to summon the other servants, but they, seeing the Panther, as they thought, in the act of swallowing her, one and all scampered off as quickly as possible; nor was she released till the governor, who heard the noise, came to her assistance. Strangers were naturally uncomfortable when they saw so powerful a beast at perfect liberty, and many were the ridiculous scenes which took place, they not liking to own their alarm, yet perfectly unable to retain their composure in his presence. This interesting animal was well fed twice every day, but never given any thing with life in it. He stood about four feet high, and was of a dark yellow colour, thickly spotted with black rosettes, and from the good feeding and the care taken to clean him, his skin shone like silk. The expression of his countenance was very animated and

good tempered, and he was particularly gentle to he would lie down on the mats by their side and slept, and even the infant shared his caresses and was unhurt. During the period of his residence on the Coast, I was much occupied by making arrangements for my departure from Africa, but generally visited the Panther as my companion every day, and we in consequence became great friends before we sailed. He was confined on board the vessel in a large wooden cage, thickly plated the front with iron. Even this confinement was afforded a sufficient protection by the canoe men,* who were alarmed at taking him from the shore to the vessel. In their confusion, they dropped cage and all into the water. For a few minutes I gave up my poor Panther as lost, but some sailors jumped into a boat belonging to the vessel and dragged him out in safety. The beast himself was completely subdued by his ducking, and as soon as he was able to open his cage to dry it, he rolled himself up in the corner, nor roused himself till after an interval of some time when he recognised my voice. When I first entered the cage he raised his head, held it on one side, then on the other, and listened; and when I came fully into his view, he jumped up on his legs, and appeared frantic; he rolled himself over, he howled, he opened his enormous jaws and seemed as if he would have torn his cage to pieces. However, as his violence subsided, he contented himself with thrusting his paws and nose through the bars of the cage, to receive my caresses. I suspect that he suffered from sea sickness, as he had apparently lost his appetite for food; but, after this period, he ate every thing given to him.

* The Panther in these countries is a sacred, or Fetish animal, and not only a heavy fine is extorted from those who kill a Panther, but the Fetish is supposed to revenge his death by cursing the offender.

The greatest treat I could bestow upon my favourite lavender water. Mr. Hutchison had told me that, on way from Ashantee, he drew a scented handkerchief from his pocket, which was immediately seized on by the Panther, who reduced it to atoms; nor could he venture to open a bottle of perfume when the animal was near, he was so eager to enjoy it. I indulged him twice a week by giving him a cup of stiff paper, pouring a little lavender water on it, and giving it to him through the bars of his cage: he would drag it to him with great eagerness, roll himself over it, nor rest till the smell had evaporated. By this I taught him to put out his paws without showing his nails, always refusing the lavender water till he had drawn them back again; and in a short time, he never, on any occasion, extended his claws when offering me his paw.

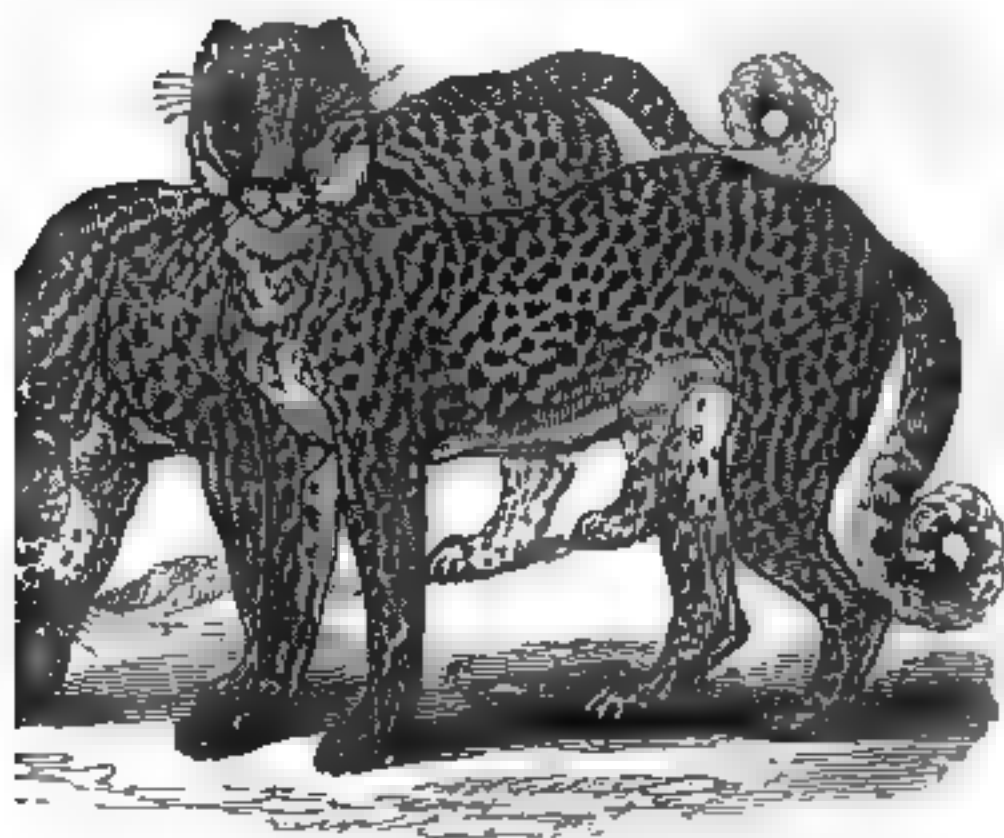
We lay eight weeks in the river Gaboon, where he had plenty of excellent food, but was never suffered to leave his cage, on account of the deck being always filled with black strangers, to whom he had a very decided aversion, though he was perfectly reconciled to white people. His indignation, however, was constantly excited by the pigs, when they were suffered to run past his cage; and the bit of one of the monkeys put him in a complete fury. While at anchor in the before-mentioned river, an orang-ang (*Simia Sátyrus*) was brought for sale, and lived several days on board; and I shall never forget the uncalculable rage of the one, or the agony of the other, at this meeting. The orang was about three feet high, and very powerful in proportion to his size; so that when he fled with extraordinary rapidity from the Panther to the further end of the deck, neither men nor things remained upright when they opposed his progress: there he took refuge in the hull, and although generally obedient to the voice of his master, force was necessary to make him quit the shelter

of its folds. As to the Panther, his back rose in an arch, his tail was elevated and perfectly stiff, his eyes flashed, and, as he howled, he showed his huge teeth; then, forgetting the bars before him, he tried to spring on the orang, to tear him to atoms. It was long before he recovered his tranquillity; day and night he appeared to be listening; and the approach of a large monkey we heard on board, or the intrusion of a black man, brought a return to his agitation.

We at length sailed for England, with an ample stock of provisions; but, unhappily, we were boarded by pirates during the voyage, and nearly reduced to starvation. The Panther must have perished had it not been for a collection of more than three hundred parrots with which we sailed from the river, and which died very fast while we were in the north-west trades. Saï's allowance was per diem, but this was so scanty a pittance that he became ravenous, and had not patience to pick all the feathers before he commenced his meal. The consequence was that he became very ill, and refused even this small quantity of food. Those around tried to persuade me that he suffered from the colder climate; but his dry nose and paws convinced me that he was feverish, and I had taken him out of his cage; when, instead of jumping about enjoying his liberty, he lay down, and rested his head on my feet. I then made him three pills, each containing two grains of calomel. The boy who had the charge of him, and who was much attached to him, held his mouth open, and I pushed the medicine down his throat. The next morning I went to visit my patient, and found the guard sleeping in the cage with him; and having administered a further dose to the invalid, I had the satisfaction of seeing him perfectly cured by the evening. On the arrival of the vessel in the London Docks, Saï was

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he is intermediate between the leopard and the cheetah but has a slenderer body, more elevation in his legs, less flat fore part of the head than the former, and wants the graceful and lengthened form of head and neck by which the latter is distinguished. His fur is not so soft but has a peculiar crispness. Above, the ground is a bright yellowish fawn; beneath, it is a pure white. The back and sides are covered with innumerable spots close to each other, from half an inch to an inch in diameter. The spots are larger, but less closely set, on the back than on the head, sides, and limbs. On the neck and under part of the body they are wanting. The tail is marked with interrupted rings of them, till near the extremity, which is surrounded by three or four complete rings. Along the back of the neck and the anterior part of the spine, is a mane, consisting of longer, crisper and more upright hairs.

In the east he is used in hunting by the higher classes. Hiding himself as much as possible, he approaches his object, and when he has come sufficiently near to the object, he makes five or six enormous bounds, with incredible velocity, darts on his victim, and instantly strangles him. In his domesticated state, the Chetah is one of the most playful and fond of animals. He has not the slightest appearance of the caprice and mischievousness of the

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THIS animal, which is an inhabitant of the wastes of eastern and northern Asia, was first described by Dr. Pallas. It is about the size of the common fox, yet its form is much more robust in proportion. It is of a tawny color, but the crown of the head is marked with little black spots, and there are two dusky lines running in an oblique direction from the eyes; the feet also are striped, but

y; the tail is longer than that of the domestic cat, beset with hair, and encircled with ten distinct rings, three of which are nearest the tip, and are so as almost to touch each other. Dr. Pallas considers it as a variety of the common wild cat.

THE LYNX



animal more commonly found in cold than in temperate climates; and is at least very rare in hot ones. Bory de Saint-Vincent, however, assures us that he shot several in the mountains of the Pyrenees. It is abundant in the northern parts of Europe, and America. The Lynx of the Greeks and Romans was not the animal which now bears that name, but the

lynx, of which the ancients have said, that the urine was so sharp as to penetrate opaque bodies, and of the urine was made to possess the marvellous property of hardening into a solid substance, a precious stone called *lyncurium*, is an animal which never existed, and than all the properties attributed to it, but in no way related to the present Lynx, or to the caracal, this imagination has no affinity, but in name. We must not, therefore, follow the generality of naturalists have hitherto done, in calling the former, which is a real being, the proper-

ties of this imaginary one, the existence of which Pl himself does not seem disposed to believe, since he speaks of it only as an extraordinary beast, and classes it with sphynx, the pegasus, and other prodigies, or monst the produce of Æthiopia.

The European Lynx possesses not the wonderful quality of seeing through walls; but it has bright eyes, a mild aspect, and, upon the whole, an agreeable and lively appearance. Such, however, is its native ferocity, that it is to be incapable of being subdued. Its urine produces precious stones; but like the cat, an animal which it never resembles, and of which it retains the manners, and even the cleanliness, it covers it over with earth.

The most beautiful skins of the Lynx are brought from Siberia, as belonging to the *lupus-cervarius*; and from Canada, as belonging to the *felis-cervarius*; because he like all other animals of the New Continent, smaller than those of the Old World, in Europe they are compared to a wolf in size, and in Canada to a wild cat.

The Lynx has short legs, and is generally about the size of the fox. The ears are erect, and are tipped with a long pencil of black hair. The fur, which is long and thick, is of a pale gray colour, with a reddish tinge, obscurely marked with small dusky spots on the upper part of the body. The under parts are white. The skin of the male is more beautifully marked than that of the female. It does not walk or run like the wolf in a progressive motion, but leaps and bounds like the cat. It gets its sole subsistence by devouring other animals; and it will follow to the very tops of trees. Neither can the wild cat, the martin, the ermine, nor the squirrel, escape its pursuit. It also seizes birds, lies in wait for the roebuck, and the hare, and with one bound often seizes them by the throat. When in possession of its prey, it

icks the blood of the animal, and then lays open its head, in order to devour the brains. This done, it generally abandons the victim of its fury, goes in search of fresh prey, and is seldom known to return to the former; a circumstance which has given rise to the vulgar remark, that of all animals the Lynx has the shortest memory. The skin of this animal changes its colour according to the season and the climate. In winter it is in every respect better than it is in summer; and its flesh, like the flesh of all beasts of prey, is not proper to eat.

CANADA LYNX.

This is the only species of the genus which exists north of the Great Lakes, and eastward of the Rocky Mountains. It is rare on the sea coast, and does not frequent the Barren Grounds, but it is not uncommon in the woody districts of the interior, since from seven to nine thousand are annually procured by the Hudson's Bay Company. It is found on the Mackenzie River, as far north as 66°. It is a timid creature, incapable of attacking any of the larger quadrupeds; but well armed for the capture of the American hare, on which it chiefly preys. Its large paws, slender loins, and long, but thick hind legs, with large buttocks scarcely relieved by a short thick tail, give it an awkward, clumsy appearance. It is easily destroyed by a blow on the back with a slender stick; and it never attacks a man. Its gait is by bounds straight forward, with the back a little arched, and lighting on all feet at once. It swims well, but it is not swift on land. It breeds once a year, and has two young at a time. The natives eat its flesh, which is white and tender, but rather flavourless, much resembling that of the American hare.

The early French writers on Canada gave it the name of *Loup Cervier*. The French Canadians now term it in-

differently *Le Chats* or *Le Peshoo*. Pennant consider as identical with the Lynx of the Old World; Geoffry Hilaire named it as a distinct species; and Temminck again, under the name of *Felis Borealis*, described species as the same in both hemispheres.—*Richardson*

RAY LYNX, OR AMERICAN WILD CAT.*



THE common Wild Cat of North America stands very upon its legs, and has a short tail which is curved up at its extremity; which circumstances tend to give animal an appearance of being somewhat disproportion. In other respects its physiognomy reminds one strong the domestic cat, to which its general aspect and movements are very similar. The residence of the Wild Cat usually in woody districts, where it preys upon birds, squirrels, and other small animals, which are taken by surprise according to the manner of all the animals belonging to the genus *felis*. This animal is about two feet long, twelve or thirteen inches in circumference. The tail little surpasses three inches in length. The general colour is a deep reddish, mingled with small spots of black.

* This animal must be distinguished from the Wild Cats, occasionally shot in our woods, which have sprung from the domestic cat.

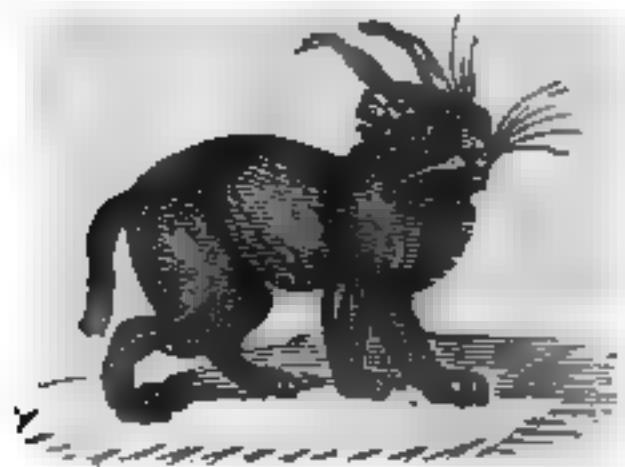
. This animal is occasionally met with in New England, but is more common in Canada and the western States. Richardson says that "Mr. Douglas brought a specimen from the Columbia River. The hunters consider it to be distinct from the Canada lynx. Mr. Douglas thinks there are more than one nondescript animal of this genus which inhabit the countries bordering on the Colum-

BANDED LYNX, OR TIGER CAT OF AMERICA.

There is no other information respecting this animal than is contained in the description of it by Lewis and Clark.

It seems to bear considerable resemblance to the Canada Lynx, but differs from it in the transverse dorsal stripes. The Tiger Cat inhabits the borders of the plains and woody country in the neighbourhood of the Pacific. It is of a size larger than the wild cat of the United States, and much the same in form, agility, and ferocity. Lewis and Clark call it the Tiger Cat.—*Richardson.*

THE CARACAL, OR SIYA-GUSH.



The Caracal resembles the lynx in size, in the shape of the body, and the aspect of the head; and, like that animal, it seems to have the peculiar, and singular characteristic of a stripe of black hair at the extremity of the ears; I do not scruple, nevertheless,

from their disagreement in other respects, to treat of as animals of different species.

The Caracal is not spotted like the lynx; it has rougher and shorter; its tail is larger, and of a un colour; its snout is more elongated; in appearance less mild, and in disposition it is fiercer. The lynx inhabitant of the cold, or at most of the temperate reg the Caracal is only found in the hot countries; and it much from their difference in disposition and climate I have judged them to be of two different species, as the inspection and comparison of the animals thems

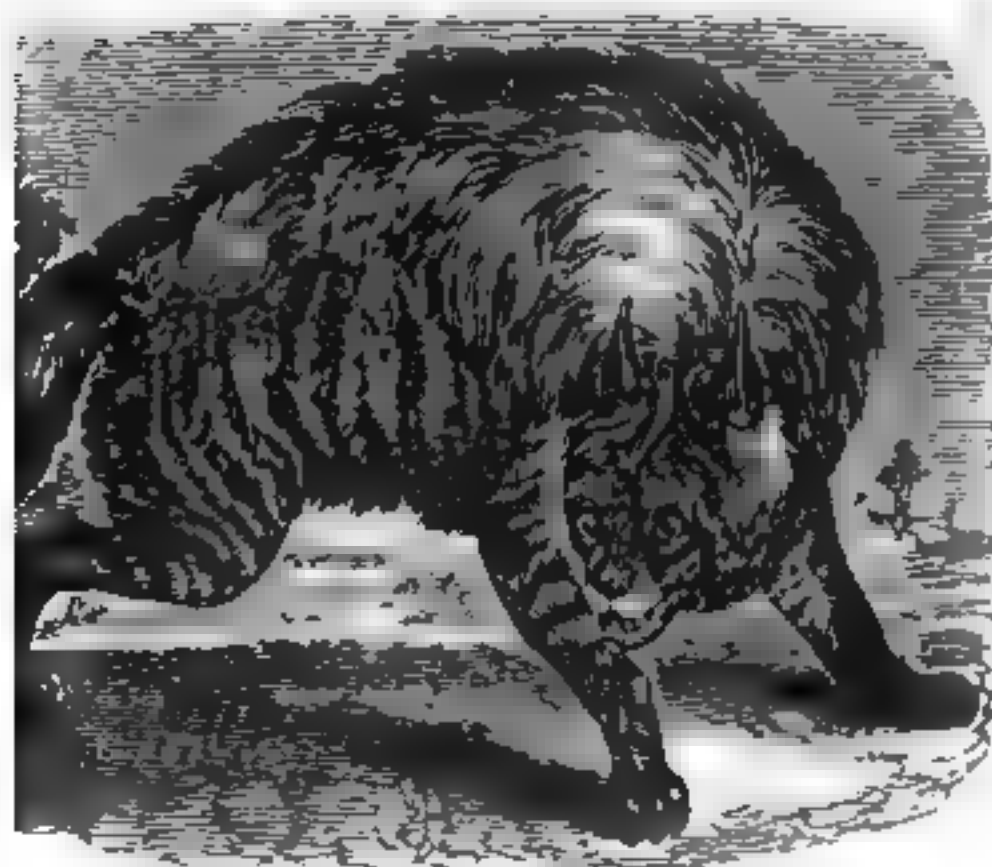
The Caracal, which is the lynx of the ancients, is mon in Barbary, in Arabia, and in the southern half of and in all those countries which are inhabited by the the panther, and the leopard: like them it depends on for its subsistence; but, unlike them, from its inferior its inferior strength, to procure that prey it has muc ficulty. Hardly, indeed, has it aught to subsist on, but the more potent carnivorous animals are disposed to for it. It follows the lion, who, when the immediate cru of his appetite are gratified, is of a disposition altog unhostile. From the refuse of what this noble anim devoured, the Caracal frequently enjoys a comfortable. When, however, he is left to his own powers for su he attacks hares, rabbits, and birds: of the latter he ceedingly fond, and will pursue them with astoni swiftness to the tops of the tallest trees.

The Caracal is somewhat larger than a fox, and fiercer and stronger. It has been known to attack, to pieces, and destroy in a few minutes, a large dog, fighting for his life, defended himself with all his stre It is very difficult to tame this animal; yet if taken very young, and afterwards reared with care, some that it may be trained to the chase, to which it is by

clined, and in which it is sure to succeed, provided it let loose but against such animals as are its inferiors and unable to resist it. Should it be a service of death every expression of reluctance it declines it. It is said that in India they make use of this animal to take rabbits, and even large birds, all of which it surprised seizes with singular address and facility. It is, however, doubtful whether the Caracal is ever thus employed.

In captivity it is extremely sulky, and stares whenever it is noticed.

THE STRIPED HYÆNA.



ing, and even so singular are the characteristics of the hyæna, that it is hardly possible to be deceived by them. Perhaps, the only quadruped which has but four toes on the fore or hind feet: like the badger it has an appendage under the tail, which does not penetrate into the in-

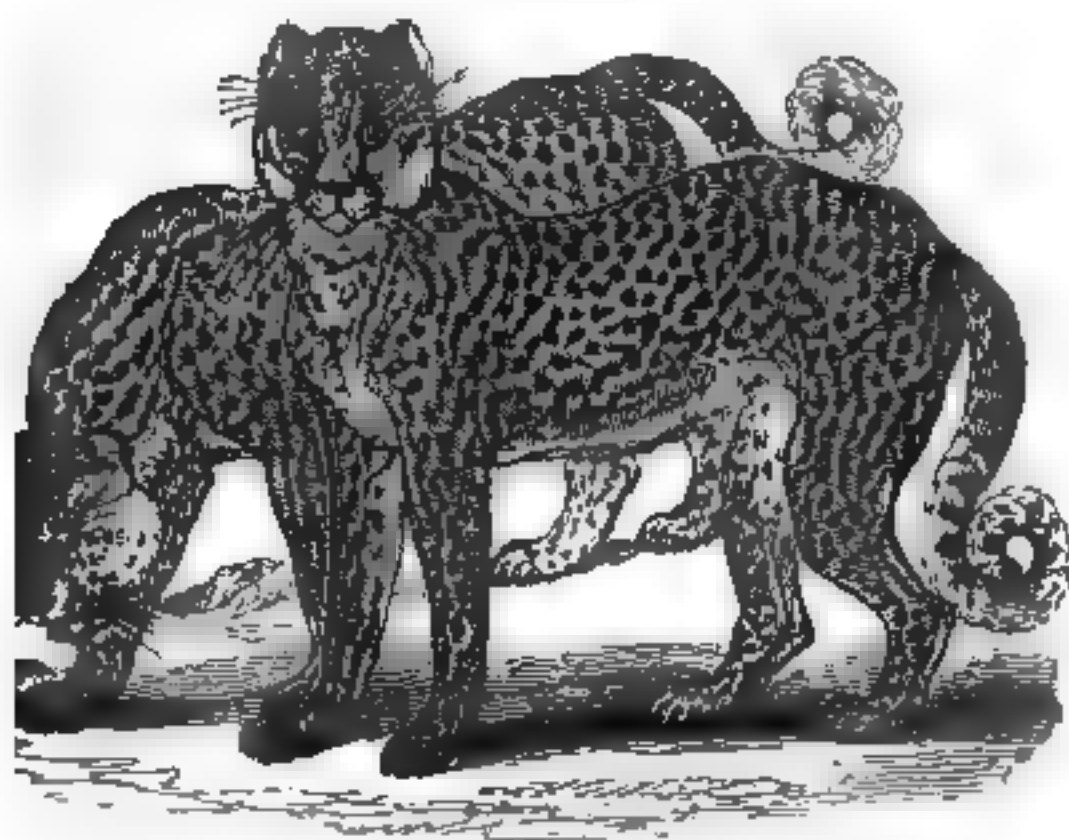
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re, and presented to the Duchess of York, who placed him in Exeter 'Change, to be taken care of, till she herself went to Oatlands. He remained there for some weeks, and was suffered to roam about the greater part of the day out any restraint. On the morning previous to the Duchess's departure from town, she went to visit her new playmate, and admired his healthy appearance and gentle deportment. In the evening, when Her Royal Highness's coachman went to take him away, he was found dead, in consequence of an inflammation on his lungs."

THE CHETAH.



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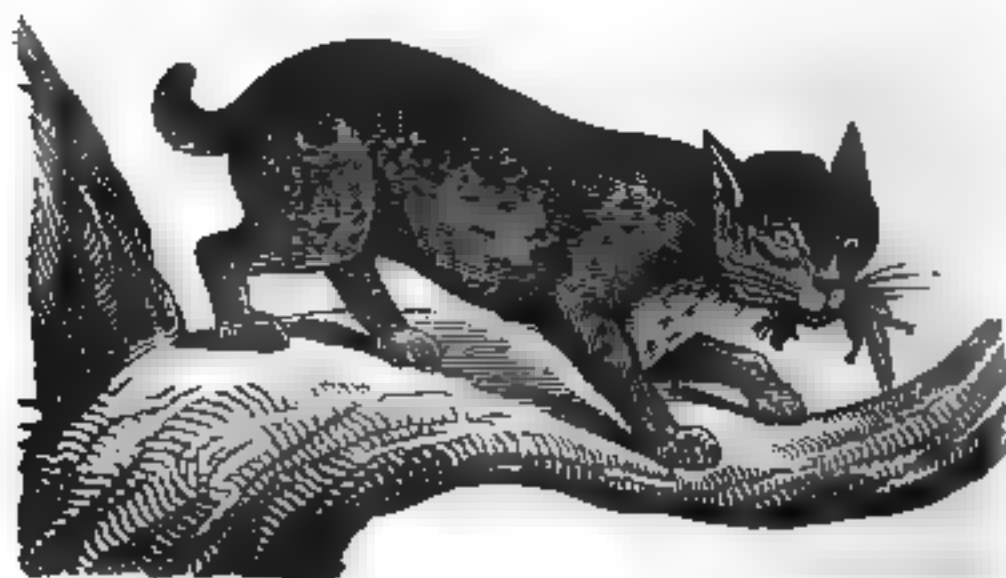
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differently *Le Chats* or *Le Peshoo*. Pennant considered it as identical with the Lynx of the Old World; Geoffry St Hilaire named it as a distinct species; and Temminck has again, under the name of *Felis Borealis*, described the species as the same in both hemispheres.—*Richardson*.

BAY LYNX, OR AMERICAN WILD CAT.*



THE common Wild Cat of North America stands very high upon its legs, and has a short tail which is curved upward at its extremity; which circumstances tend to give the animal an appearance of being somewhat disproportioned. In other respects its physiognomy reminds one strongly of the domestic cat, to which its general aspect and movements are very similar. The residence of the Wild Cat is usually in woody districts, where it preys upon birds, squirrels, and other small animals, which are taken by surprise according to the manner of all the animals belonging to the genus *felis*. This animal is about two feet long, and twelve or thirteen inches in circumference. The tail but little surpasses three inches in length. The general colour is a deep reddish, mingled with small spots of black.

* This animal must be distinguished from the Wild Cats, occasionally shot in our woods, which have sprung from the domestic cat.

own. This animal is occasionally met with in New England, but is more common in Canada and the western States. Richardson says that "Mr. Douglas brought a specimen on the Columbia River. The hunters consider it to be quite distinct from the Canada lynx. Mr. Douglas thinks that there are more than one nondescript animal of this genus, which inhabit the countries bordering on the Columbia."

BANDED LYNX, OR TIGER CAT OF AMERICA.

POSSESS no other information respecting this animal than that is contained in the description of it by Lewis and Clark. It seems to bear considerable resemblance to the Canada Lynx, but differs from it in the transverse dorsal stripes. The Tiger Cat inhabits the borders of the plains and the woody country in the neighbourhood of the Pacific. It is of a size larger than the wild cat of the United States, and much the same in form, agility, and ferocity. Lewis and Clark call it the Tiger Cat.—*Richardson.*

THE CARACAL, OR SIYA-GUSH.



ALTHOUGH the Caracal resembles the lynx in size, in the formation of the body, and the aspect of the head; and, though, like that animal, it seems to have the peculiar, and most singular characteristic of a stripe of black hair at the extremity of the ears; I do not scruple, nevertheless,

from their disagreement in other respects, to treat of them as animals of different species.

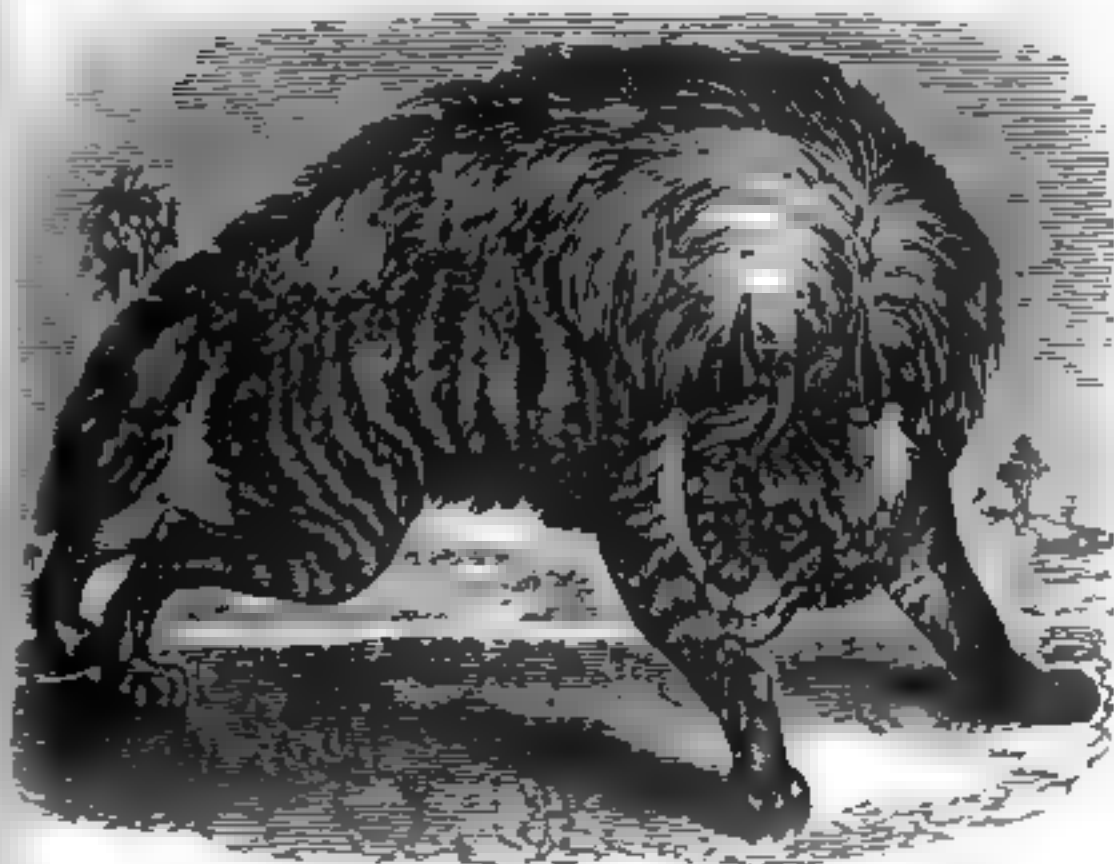
The Caracal is not spotted like the lynx; it has a rougher and shorter; its tail is larger, and of a uniform colour; its snout is more elongated; in appearance less mild, and in disposition it is fiercer. The lynx is an inhabitant of the cold, or at most of the temperate regions; the Caracal is only found in the hot countries; and I have judged them to be of two different species, after the inspection and comparison of the animals themselves.

The Caracal, which is the lynx of the ancients, is common in Barbary, in Arabia, and in the southern half of Africa, and in all those countries which are inhabited by the lion, the panther, and the leopard: like them it depends on hunting for its subsistence; but, unlike them, from its inferior strength, to procure that prey it has much difficulty. Hardly, indeed, has it ought to subsist on, but the more potent carnivorous animals are disposed to prey on it. It follows the lion, who, when the immediate cravings of his appetite are gratified, is of a disposition altogether unhostile. From the refuse of what this noble animal devoured, the Caracal frequently enjoys a comfortable meal. When, however, he is left to his own powers for sustenance, he attacks hares, rabbits, and birds: of the latter he is exceedingly fond, and will pursue them with astonishing swiftness to the tops of the tallest trees.

The Caracal is somewhat larger than a fox, and fiercer and stronger. It has been known to attack, and destroy in a few minutes, a large dog fighting for his life, defended himself with all his strength. It is very difficult to tame this animal; yet if taken very young, and afterwards reared with care, some have been that it may be trained to the chase, to which it is by nature inclined.

ture inclined, and in which it is sure to succeed, provided it is not let loose but against such animals as are its inferiors, and unable to resist it. Should it be a service of danger, with every expression of reluctance it declines it. It is stated that in India they make use of this animal to take hares, rabbits, and even large birds, all of which it surprises, and seizes with singular address and facility. It is, however, doubtful whether the Caracal is ever thus employed. In captivity it is extremely sulky, and stares fiercely whenever it is noticed.

THE STRIPED HYÆNA.



So striking, and even so singular are the characteristics of the Hyæna, that it is hardly possible to be deceived by them. It is, perhaps, the only quadruped which has but four toes on either the fore or hind feet: like the badger it has an aperture under the tail, which does not penetrate into the in-

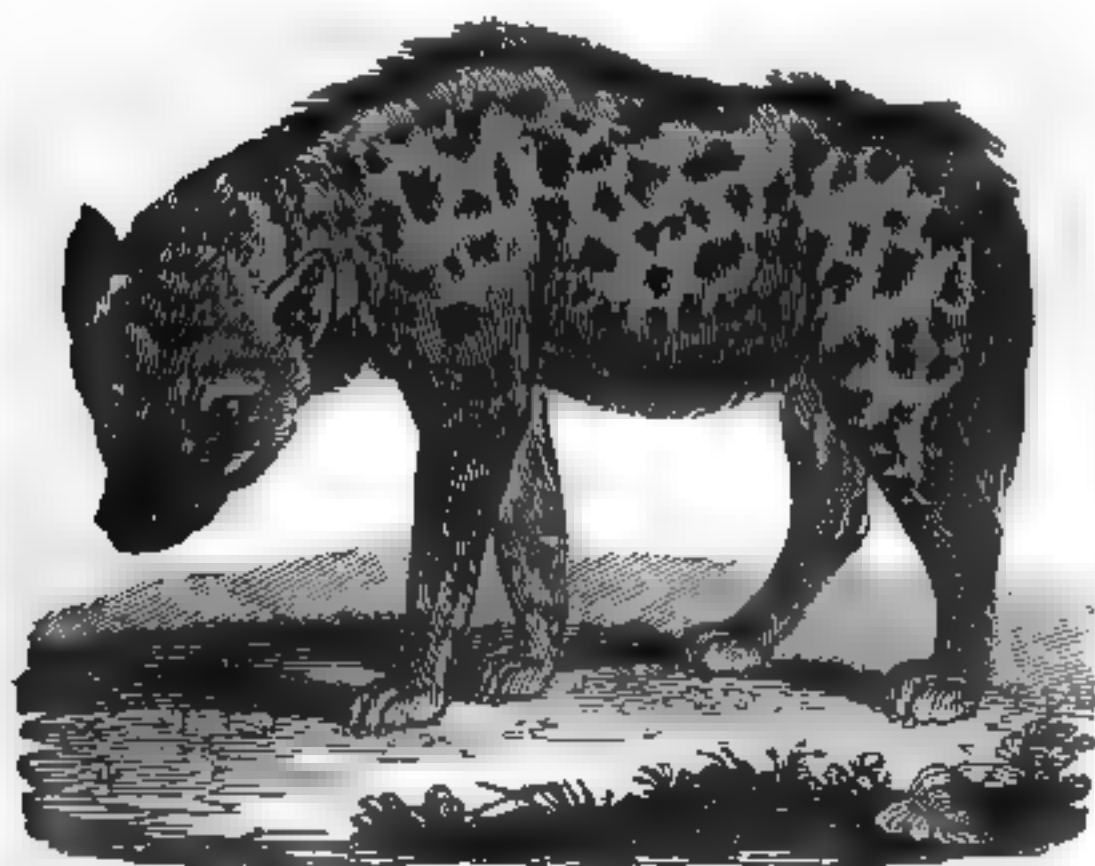
terior parts of the body ; its ears are long, straight, and nearly bare ; its head is more square and shorter than that of the wolf ; its legs, the hind ones especially, are longer ; its eyes are placed like those of the dog ; the hair and mane of a brownish gray, with transverse dark brown or blackish bands on the body, which stripes become oblique on the flanks and the legs. The coat is of two sorts ; fur or wool, in small quantity, and long, stiff, and silky hair. Its height varies from nineteen to twenty-five inches, and its usual length, from the muzzle to the tail, is three feet three inches.

The Striped Hyæna is a native of Barbary, Egypt, Abyssinia, Nubia, Syria, Persia, and the East Indies. It generally resides in the caverns of mountains, in the clefts of rocks, or in dens, which it has formed for itself under the earth. It lives by depredation, like the wolf ; but it is a stronger animal, and seemingly more daring. It sometimes attacks man, carries off cattle, follows the flocks, breaks open the sheep-cotes by night, and ravages with a ferocity insatiable. By night also its eyes shine ; and it is maintained that it sees better than in the day. If we may credit all the naturalists who have treated of this animal, its cry is very peculiar, beginning with something like the moaning of a human being, and ending in a sound which resembles the sobs or reachings of a man in a violent fit of vomiting ; but, according to Kæmpfer, who was an ear-witness of the fact, it sounds like the lowing of a calf. When at a loss for other prey, it scrapes up the earth with its feet, and devours the carcasses both of animals and men, which, in the countries that it inhabits, are interred promiscuously in the fields.

Of few animals, have so many absurd stories been told as of that we are now treating of. It has been affirmed, *that the neck consisted of but one jointless bone, which*

ne was of great efficacy in magical invocations ; that this nature could imitate the human voice ; that it remembered the names of the shepherds, called to them, charmed them, rendered them motionless ; that, at the same time, it would chase to the shepherdesses ; caused them to forget their flocks, to be distracted with love, &c. All these might surely happen without the intervention of an Hyæna.

THE SPOTTED HYÆNA.



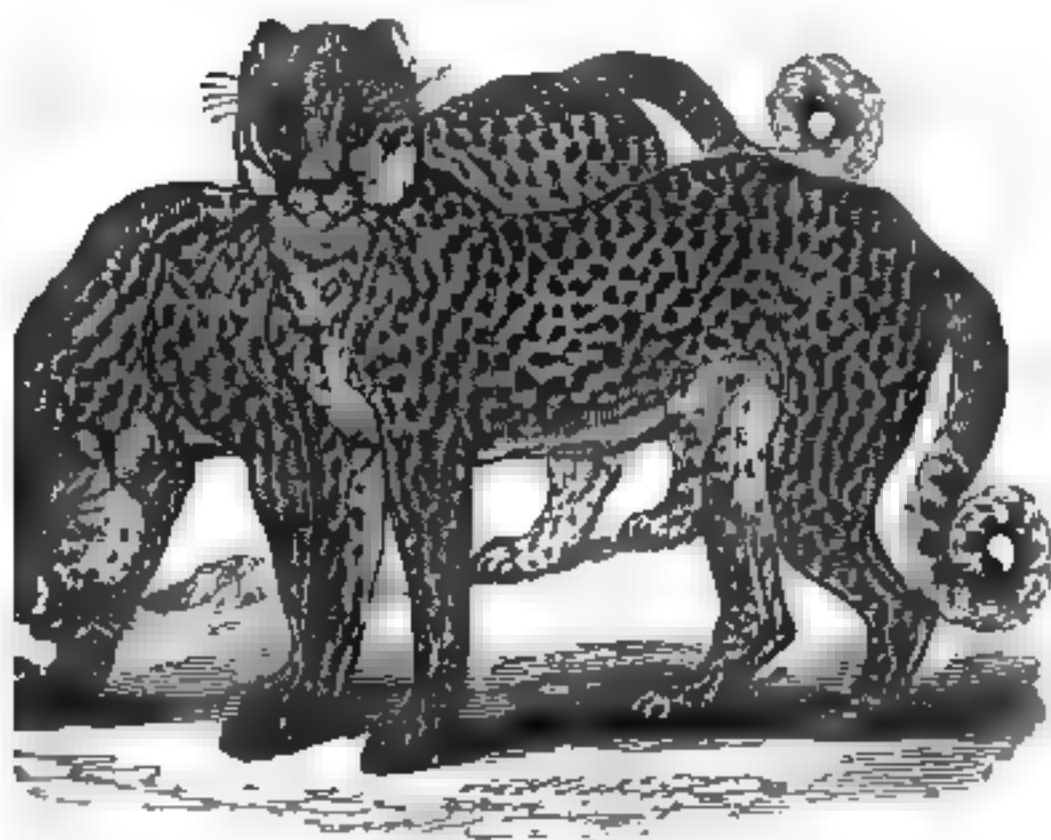
This animal is a native of Southern Africa, and abounds in the neighbourhood of the Cape of Good Hope, where it is called the Tiger Wolf. It is somewhat inferior in size to the Striped Hyæna, but, in its wild state, has the same manners and propensities. Its short muzzle is less abruptly truncated, and its ears, short and broad in form, are of a nearly quadrilateral figure. The general colour of the side is a dirty yellow, or yellowish brown, and the whole body is covered with spots of a blackish brown, excepting

of its folds. As to the Panther, his back rose in an arch, his tail was elevated and perfectly stiff, his eyes flashed, and, as he howled, he showed his huge teeth; then, as if forgetting the bars before him, he tried to spring on the orang, to tear him to atoms. It was long before he recovered his tranquillity; day and night he appeared to be on the listen; and the approach of a large monkey we had on board, or the intrusion of a black man, brought a return of his agitation.

We at length sailed for England, with an ample supply of provisions; but, unhappily, we were boarded by pirates during the voyage, and nearly reduced to starvation. My Panther must have perished had it not been for a collection of more than three hundred parrots with which we sailed from the river, and which died very fast while we were in the north-west trades. Saï's allowance was one per diem, but this was so scanty a pittance that he became ravenous, and had not patience to pick all the feathers off before he commenced his meal. The consequence was that he became very ill, and refused even this small quantity of food. Those around tried to persuade me that he suffered from the colder climate; but his dry nose and paws convinced me that he was feverish, and I had him taken out of his cage; when, instead of jumping about enjoying his liberty, he lay down, and rested his head on my feet. I then made him three pills, each containing two grains of calomel. The boy who had the charge of him, and who was much attached to him, held his mouth open, and I pushed the medicine down his throat. In the next morning I went to visit my patient, and found the guard sleeping in the cage with him; and having administered a further dose to the invalid, I had the satisfaction of seeing him perfectly cured by the evening. On the arrival of the vessel in the London Docks, Saï was taken

e, and presented to the Duchess of York, who placed n Exeter 'Change, to be taken care of, till she her- ent to Oatlands. He remained there for some weeks, as suffered to roam about the greater part of the day ut any restraint. On the morning previous to the ess's departure from town, she went to visit her new layed with him, and admired his healthy appearance entle deportment. In the evening, when Her Royal ness's coachman went to take him away, he was in consequence of an inflammation on his lungs."

THE CHETAH.



s animal, which is called the Youze in Persia, the ah in India, and to which Pennant gave the name of Hunting Leopard, is a native of Africa and Southern . With the distinguishing characteristics of the cat ies, it combines somewhat of the dog. Unlike those he cat, its claws are *only slightly retractile*. In size

he is intermediate between the leopard and the hound, but has a slenderer body, more elevation in his legs, and a less flat fore part of the head than the former, while he wants the graceful and lengthened form of head and body by which the latter is distinguished. His fur is not sleek, but has a peculiar crispness. Above, the ground colour is a bright yellowish fawn; beneath, it is a pure white; the back and sides are covered with innumerable spots, close to each other, from half an inch to an inch in diameter. The spots are larger, but less closely set, on the back than on the head, sides, and limbs. On the chest and under part of the body they are wanting. The tail is marked with interrupted rings of them, till near the extremity, which is surrounded by three or four complete rings. Along the back of the neck and the anterior part of the spine, is a mane, consisting of longer, crisper, and more upright hairs.

In the east he is used in hunting by the higher classes. Hiding himself as much as possible, he approaches the object, and when he has come sufficiently near to the object, he makes five or six enormous bounds, with incredible velocity, darts on his victim, and instantly strangles him. In his domesticated state, the Chetah is one of the most playful and fond of animals. He has not the slightest appearance of the caprice and mischievousness of the cat.

THE MANUL.

THIS animal, which is an inhabitant of the wastes of Tartary and northern Asia, was first described by Dr. Pallas. It is about the size of the common fox, yet its form is much more robust in proportion. It is of a tawny colour, but the crown of the head is marked with little black spots, and there are two dusky lines running in an oblique direction from the eyes; the feet also are striped, but rather

urely; the tail is longer than that of the domestic cat, y beset with hair, and encircled with ten distinct rings, three of which are nearest the tip, and are d so as almost to touch each other. Dr. Pallas con- s this as a variety of the common wild cat.

THE LYNX



animal more commonly found in cold than in temper- imates; and is at least very rare in hot ones. Bory in- cent, however, assures us that he shot several in . It is abundant in the northern parts of Europe, and America. The Lynx of the Greeks and Romans ot the animal which now bears that name, but the al.

e Lynx, of which the ancients have said, that the was so sharp as to penetrate opaque bodies, and of h the urine was made to possess the marvellous prop- of hardening into a solid substance, a precious stone d *lapis lyncurius*, is an animal which never existed, more than all the properties attributed to it, but in . To the present Lynx, or to the caracal, this imagi- one has no affinity, but in name. We must not, there- as the generality of naturalists have hitherto done, ute to the former, *which is a real being*, the proper-

ties of this imaginary one, the existence of which Pliny himself does not seem disposed to believe, since he speaks of it only as an extraordinary beast, and classes it with the sphynx, the pegasus, and other prodigies, or monsters, the produce of Æthiopia.

The European Lynx possesses not the wonderful quality of seeing through walls; but it has bright eyes, a mild aspect, and, upon the whole, an agreeable and lively appearance. Such, however, is its native ferocity, that it is said to be incapable of being subdued. Its urine produces not precious stones; but like the cat, an animal which it nearly resembles, and of which it retains the manners, and even the cleanliness, it covers it over with earth.

The most beautiful skins of the Lynx are brought from Siberia, as belonging to the *lupus-cervarius*; and from Canada, as belonging to the *felis-cervarius*; because being, like all other animals of the New Continent, smaller than those of the Old World, in Europe they are compared to a wolf in size, and in Canada to a wild cat.

The Lynx has short legs, and is generally about the size of the fox. The ears are erect, and are tipped with a long pencil of black hair. The fur, which is long and thick, is of a pale gray colour, with a reddish tinge, and obscurely marked with small dusky spots on the upper part of the body. The under parts are white. The skin of the male is more beautifully marked than that of the female. It does not walk or run like the wolf in a progressive motion, but leaps and bounds like the cat. It gains its sole subsistence by devouring other animals; and that it will follow to the very tops of trees. Neither can the wild cat, the martin, the ermine, nor the squirrel, escape its pursuit. It also seizes birds, lies in wait for the stag, the roebuck, and the hare, and with one bound often seizes them by the throat. When in possession of its prey, it fir-

s the blood of the animal, and then lays open its head, order to devour the brains. This done, it generally devours the victim of its fury, goes in search of fresh, and is seldom known to return to the former; an instance which has given rise to the vulgar remark, of all animals the Lynx has the shortest memory. The skin of this animal changes its colour according to season and the climate. In winter it is in every respect better than it is in summer; and its flesh, like the of all beasts of prey, is not proper to eat.

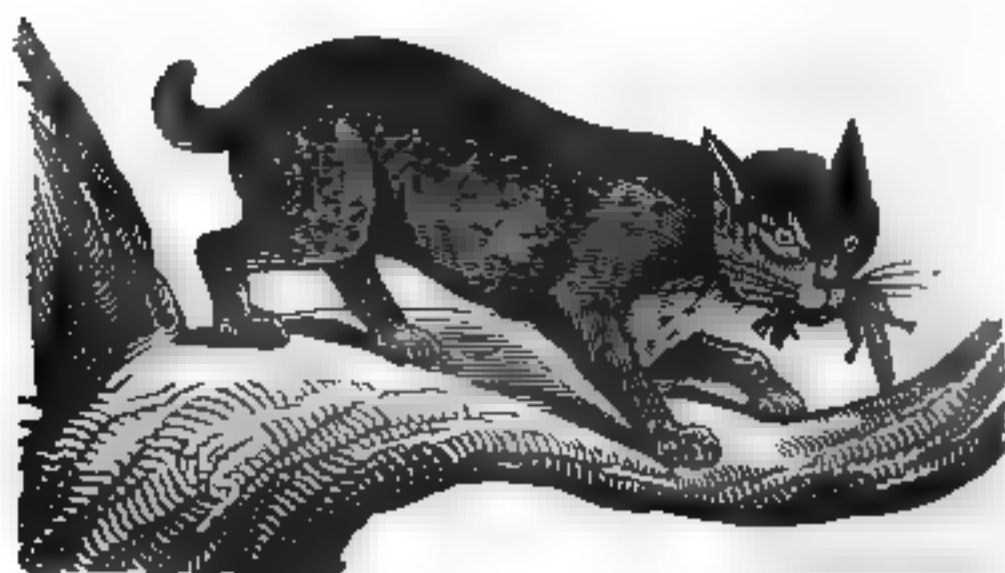
CANADA LYNX.

s is the only species of the genus which exists north of the Great Lakes, and eastward of the Rocky Mountains. It is rare on the sea coast, and does not frequent the Barren Grounds, but it is not uncommon in the woody districts of the interior, since from seven to nine thousand are annually procured by the Hudson's Bay Company. It is found on the Mackenzie River, as far north as 66°. It is a timid creature, incapable of attacking any of the larger brupeds; but well armed for the capture of the American hare, on which it chiefly preys. Its large paws, slender loins, and long, but thick hind legs, with large buttocks scarcely relieved by a short thick tail, give it an awkward, clumsy appearance. It is easily destroyed by a blow on the back with a slender stick; and it never attacks a man. Its gait is by bounds straight forward, with the back a little arched, and lighting on all feet at once. It swims well, but it is not swift on land. It breeds once a year, and has two young at a time. The natives eat its flesh, which is white and tender, but rather flavourless, resembling that of the American hare.

The early French writers on Canada gave it the name *Loup Cervier*. The French Canadians now term it in-

differently *Le Chats* or *Le Peshoo*. Pennant considered as identical with the Lynx of the Old World; Geoffroy St Hilaire named it as a distinct species; and Temminck has again, under the name of *Felis Borealis*, described the species as the same in both hemispheres.—*Richardson*.

BAY LYNX, OR AMERICAN WILD CAT.*



THE common Wild Cat of North America stands very high upon its legs, and has a short tail which is curved upward at its extremity; which circumstances tend to give the animal an appearance of being somewhat disproportioned. In other respects its physiognomy reminds one strongly of the domestic cat, to which its general aspect and movements are very similar. The residence of the Wild Cat is usually in woody districts, where it preys upon birds, squirrels, and other small animals, which are taken by surprise according to the manner of all the animals belonging to the genus *felis*. This animal is about two feet long, and twelve or thirteen inches in circumference. The tail but little surpasses three inches in length. The general colour is a deep reddish, mingled with small spots of black.

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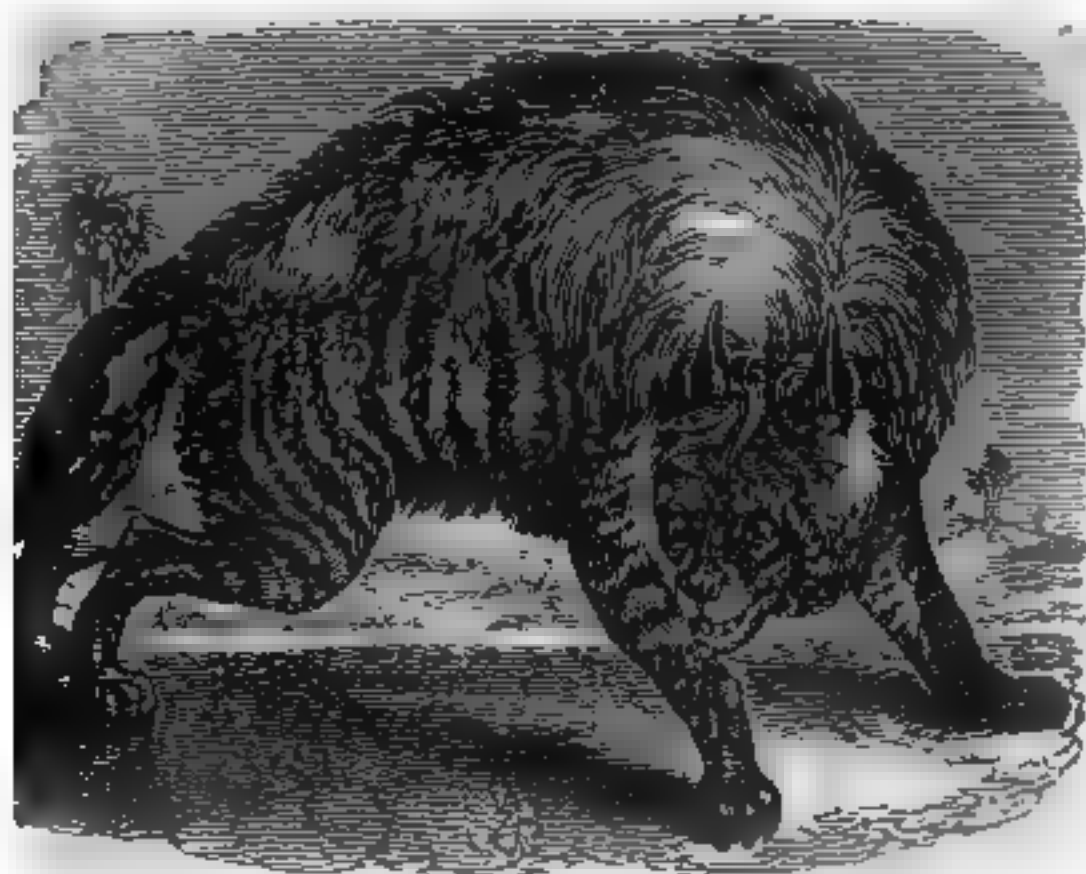
The Caracal is not spotted like the lynx; it has hair rougher and shorter; its tail is larger, and of a uniform colour; its snout is more elongated; in appearance it is less mild, and in disposition it is fiercer. The lynx is an inhabitant of the cold, or at most of the temperate regions; the Caracal is only found in the hot countries; and it is as much from their difference in disposition and climate that I have judged them to be of two different species, as from the inspection and comparison of the animals themselves.

The Caracal, which is the lynx of the ancients, is common in Barbary, in Arabia, and in the southern half of Asia, and in all those countries which are inhabited by the lion, the panther, and the leopard: like them it depends on prey for its subsistence; but, unlike them, from its inferior size and its inferior strength, to procure that prey it has much difficulty. Hardly, indeed, has it aught to subsist on, but what the more potent carnivorous animals are disposed to leave for it. It follows the lion, who, when the immediate craving of his appetite are gratified, is of a disposition altogether unhostile. From the refuse of what this noble animal has devoured, the Caracal frequently enjoys a comfortable meal. When, however, he is left to his own powers for support, he attacks hares, rabbits, and birds: of the latter he is exceedingly fond, and will pursue them with astonishing swiftness to the tops of the tallest trees.

The Caracal is somewhat larger than a fox, and much fiercer and stronger. It has been known to attack, tear in pieces, and destroy in a few minutes, a large dog, who, fighting for his life, defended himself with all his strength. It is very difficult to tame this animal; yet if taken when very young, and afterwards reared with care, some affirm that it may be trained to the chase, to which it is by nature

re inclined, and in which it is sure to succeed, provided it is not let loose but against such animals as are its inferiors, and unable to resist it. Should it be a service of danger, with every expression of reluctance it declines it. It is stated that in India they make use of this animal to take deer, rabbits, and even large birds, all of which it surprises, and seizes with singular address and facility. It is, however, doubtful whether the Caracal is ever thus employed. In captivity it is extremely sulky, and stares fiercely whenever it is noticed.

THE STRIPED HYÆNA.



striking, and even so singular are the characteristics of the Hyæna, that it is hardly possible to be deceived by them. It is, perhaps, the only quadruped which has but four toes on either the fore or hind feet : like the badger it has an aperture under the tail, which does not penetrate into the in-

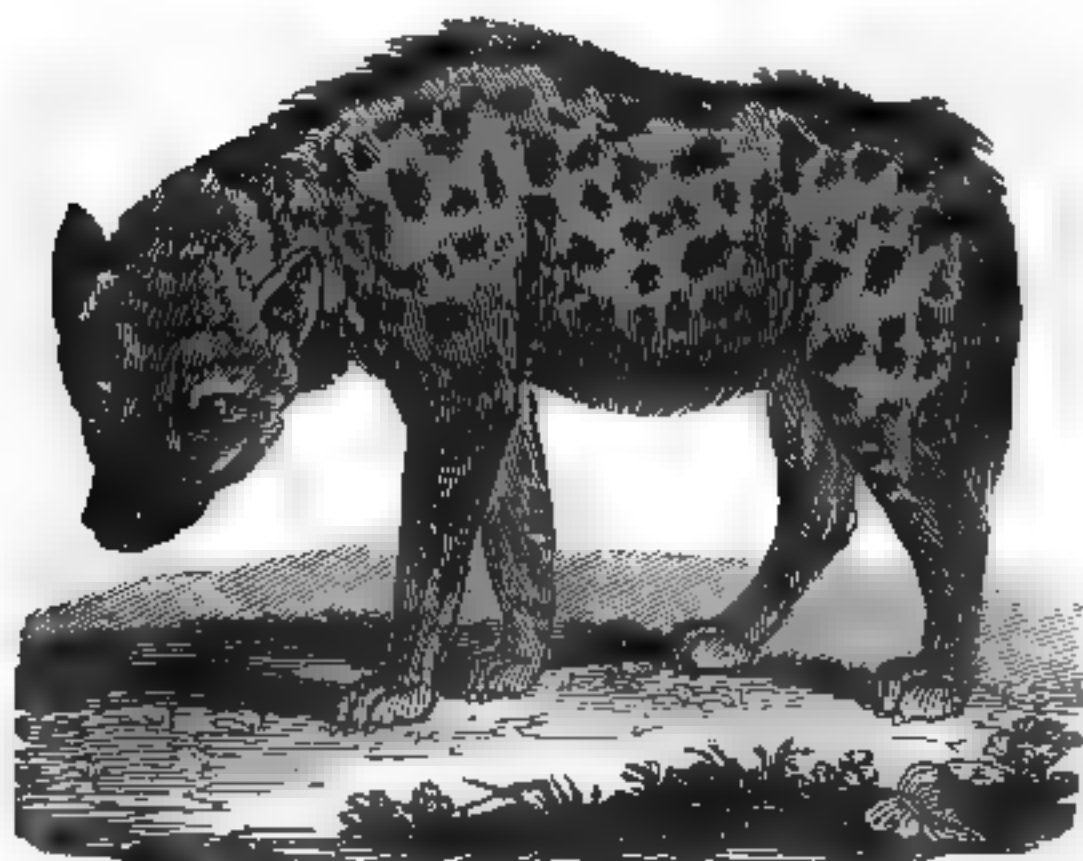
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The Striped Hyæna is a native of Barbary, Egypt, Arabia, India, Nubia, Syria, Persia, and the East Indies. It generally resides in the caverns of mountains, in the cracks of rocks, or in dens, which it has formed for itself underground. It lives by depredation, like the wolf ; but is a stronger animal, and seemingly more daring. It sometimes attacks man, carries off cattle, follows the flocks, and opens the sheep-cotes by night, and ravages with a voracity insatiable. By night also its eyes shine ; and it is maintained that it sees better than in the day. If we credit all the naturalists who have treated of this animal, its cry is very peculiar, beginning with something like the moaning of a human being, and ending in a sound which resembles the sobs or reachings of a man in a violent fit of vomiting ; but, according to Kæmpfer, who was a witness of the fact, it sounds like the lowing of an ox. When at a loss for other prey, it scrapes up the earth with its feet, and devours the carcasses both of animals and vegetables, which, in the countries that it inhabits, are interred peculiarly in the fields.

Of few animals, have so many absurd stories been told as of that we are now treating of. It has been affirmed that the neck consisted of but one jointless bone,

It was of great efficacy in magical invocations ; that this creature could imitate the human voice ; that it remembered the names of the shepherds, called to them, charmed them, rendered them motionless ; that, at the same time, it would chase to the shepherdesses ; caused them to forget their flocks, to be distracted with love, &c. All these might surely happen without the intervention of an Hyæna.

THE SPOTTED HYÆNA.



This animal is a native of Southern Africa, and abounds in the neighbourhood of the Cape of Good Hope, where it is called the Tiger Wolf. It is somewhat inferior in size to the Striped Hyæna, but, in its wild state, has the same manners and propensities. Its short muzzle is less abruptly truncated, and its ears, short and broad in form, are of a nearly quadrilateral figure. The general colour of the fur is a dirty yellow, or yellowish brown, and the whole body is covered with spots of a blackish brown, excepting

the under part of the belly and of the breast, the inner surface of the limbs and the head. The muzzle is black, and the tail covered with long bushy hair of a blackish brown. Like the striped Hyæna, the spotted species has jaws of enormous strength, with which it easily breaks to pieces the hardest bones.

It is a common but erroneous idea, that the Hyæna is wholly savage and untameable. Both species have been tamed, and instances are recorded of individuals having manifested all the attachment of a dog. The Striped Hyæna has recently been domesticated in the Cape territory, and is considered one of the best hunters after game, and as faithful and diligent as any of the common domestic dogs. The truth is, that the Hyæna has a very natural aversion to close confinement, and when exhibited, as he generally is, in a narrow cage, he is miserable, and consequently irritable. In a man, similarly situated, the expression of anger would be praised as a generous hatred of slavery.

The Hyæna was undoubtedly once an inhabitant not only of the European continent, but also of the British islands. His bones have been found in various parts of England and Wales, and particularly in a cave at Kirby Moorside, in Yorkshire. That cave, which was evidently the abode of numerous Hyænas, likewise contains bones of the elephant, the rhinoceros, the hippopotamus, the horse, the ox, the bear, various kinds of deer, the fox, the water rat, and several birds.

The depredations of the Hyæna are not confined to the remains of the dead. There are periods when they become bold from extreme hunger, and will carry off very large animals, and even human beings, with the most daring ferocity. Major Denham says, "at this season of the year," (August), "there are other reasons, besides the

rain, which induce people to remain in their habi-

When the great lake overflows the immense which, in the dry season, affords cover and food, coarse grass and jungle, to the numerous savage with which Bornou abounds, they are driven from wilds, and take refuge in the standing corn, and nes in the immediate neighbourhood of the towns. nts had already been seen at Dowergoo, scarcely es from Kouka; and a female slave, while she was ng home, from weeding the corn, to Kowa, not an ten miles distant, had been carried off by a lion-he Hyænas, which are every where in legions, grew o extremely ravenous, that a good large village, I sometimes procured a draught of sour milk on my hooting excursions, had been attacked the night my last visit, the town absolutely carried by storm, istanding defences nearly six feet high of branches prickly tulloh, and two donkies, whose flesh these s are particularly fond of, carried off, in spite of the of the people. We constantly heard them close to lls of our own town at nights; and on a gate being tly open, they would enter and carry off any unfor-animal that they could find in the streets."

h this strong desire for food, approaching to the ss of the most desperate craving, the Hyæna, al- generally fearful of the presence of man, is an of natural terror to the African traveller. Bruce, that one night in Maibsha, in Abyssinia, he heard in his tent, and, getting up from his bed, saw two lue eyes glaring upon him. It was a powerful Hy- ho had been attracted to the tent by a quantity of , which he had seized upon, and was bearing off in uth. He had a desperate encounter with the beast, ceeded in *killing him*. In the neighbourhood of

ties of this imaginary one, the existence of which P himself does not seem disposed to believe, since he speaks of it only as an extraordinary beast, and classes it with sphynx, the pegasus, and other prodigies, or monsters the produce of Æthiopia.

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The Lynx has short legs, and is generally about the size of the fox. The ears are erect, and are tipped with a long pencil of black hair. The fur, which is long and thick, is of a pale gray colour, with a reddish tinge, obscurely marked with small dusky spots on the upper part of the body. The under parts are white. The skin of the male is more beautifully marked than that of the female. It does not walk or run like the wolf in a progressive motion, but leaps and bounds like the cat. It gets its sole subsistence by devouring other animals; and it will follow to the very tops of trees. Neither can the wild cat, the martin, the ermine, nor the squirrel, escape its pursuit. It also seizes birds, lies in wait for the roebuck, and the hare, and with one bound often seizes them by the throat. When in possession of its prey, it

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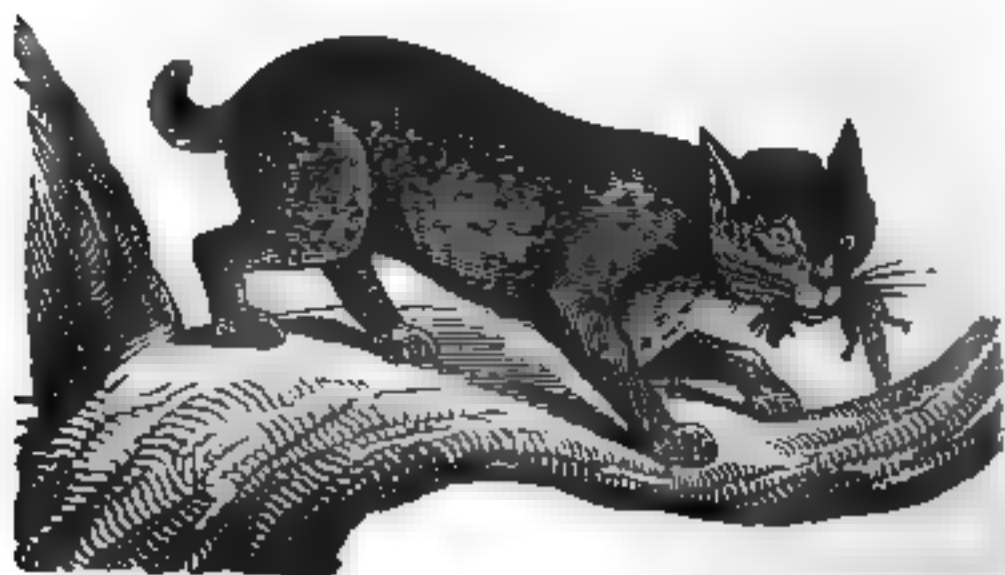
CANADA LYNX.

This is the only species of the genus which exists north of the Great Lakes, and eastward of the Rocky Mountains. It is rare on the sea coast, and does not frequent the Barren Grounds, but it is not uncommon in the woody districts of the interior, since from seven to nine thousand are annually procured by the Hudson's Bay Company. It is found on the Mackenzie River, as far north as 66°. It is a timid creature, incapable of attacking any of the larger animals; but well armed for the capture of the American hare, on which it chiefly preys. Its large paws, slender limbs, and long, but thick hind legs, with large buttocks scarcely relieved by a short thick tail, give it an awkward, clumsy appearance. It is easily destroyed by a blow on the back with a slender stick; and it never attacks a man. Its gait is by bounds straight forward, with the back a little arched, and lighting on all feet at once. It swims well, but it is not swift on land. It breeds once a year, and has two young at a time. The natives eat its flesh, which is white and tender, but rather flavourless, resembling that of the American hare.

The early French writers on Canada gave it the name *Leop. Carver*. The French Canadians now term it in-

differently *Le Chats* or *Le Peshoo*. Pennant considered it as identical with the Lynx of the Old World; Geoffry St Hilaire named it as a distinct species; and Temminck has again, under the name of *Felis Borealis*, described the species as the same in both hemispheres.—*Richardson*.

GRAY LYNX, OR AMERICAN WILD CAT.*



THE common Wild Cat of North America stands very high upon its legs, and has a short tail which is curved upwards at its extremity; which circumstances tend to give the animal an appearance of being somewhat disproportionate. In other respects its physiognomy reminds one strongly of the domestic cat, to which its general aspect and movements are very similar. The residence of the Wild Cat is usually in woody districts, where it preys upon birds, squirrels, and other small animals, which are taken by surprise according to the manner of all the animals belonging to the genus *felis*. This animal is about two feet long, and twelve or thirteen inches in circumference. The tail a little surpasses three inches in length. The general colour is a deep reddish, mingled with small spots of black.

* This animal must be distinguished from the Wild Cats, occasionally shot in our woods, which have sprung from the domestic cat.

This animal is occasionally met with in New England but is more common in Canada and the western States. Richardson says that "Mr. Douglas brought a specimen from the Columbia River. The hunters consider it to be distinct from the Canada lynx. Mr. Douglas thinks there are more than one nondescript animal of this genus which inhabit the countries bordering on the Colum-

BANDED LYNX, OR TIGER CAT OF AMERICA.

possess no other information respecting this animal than is contained in the description of it by Lewis and Clark.

It seems to bear considerable resemblance to the Canada Lynx, but differs from it in the transverse dorsal stripes. The Tiger Cat inhabits the borders of the plains and the woody country in the neighbourhood of the Pacific. It is of a size larger than the wild cat of the United States, and much the same in form, agility, and ferocity. Lewis and Clark call it the Tiger Cat.—*Richardson.*

THE CARACAL, OR SIYA-GUSH.



The Caracal resembles the lynx in size, in the shape of the body, and the aspect of the head; and, like that animal, it seems to have the peculiar, and singular characteristic of a stripe of black hair at the extremity of the ears; I do not scruple, nevertheless,

from their disagreement in other respects, to as animals of different species.

The Caracal is not spotted like the lynx rougher and shorter; its tail is larger, and colour; its snout is more elongated; in app less mild, and in disposition it is fiercer. Tl inhabitant of the cold, or at most of the temper the Caracal is only found in the hot countries much from their difference in disposition and I have judged them to be of two different spe the inspection and comparison of the animals

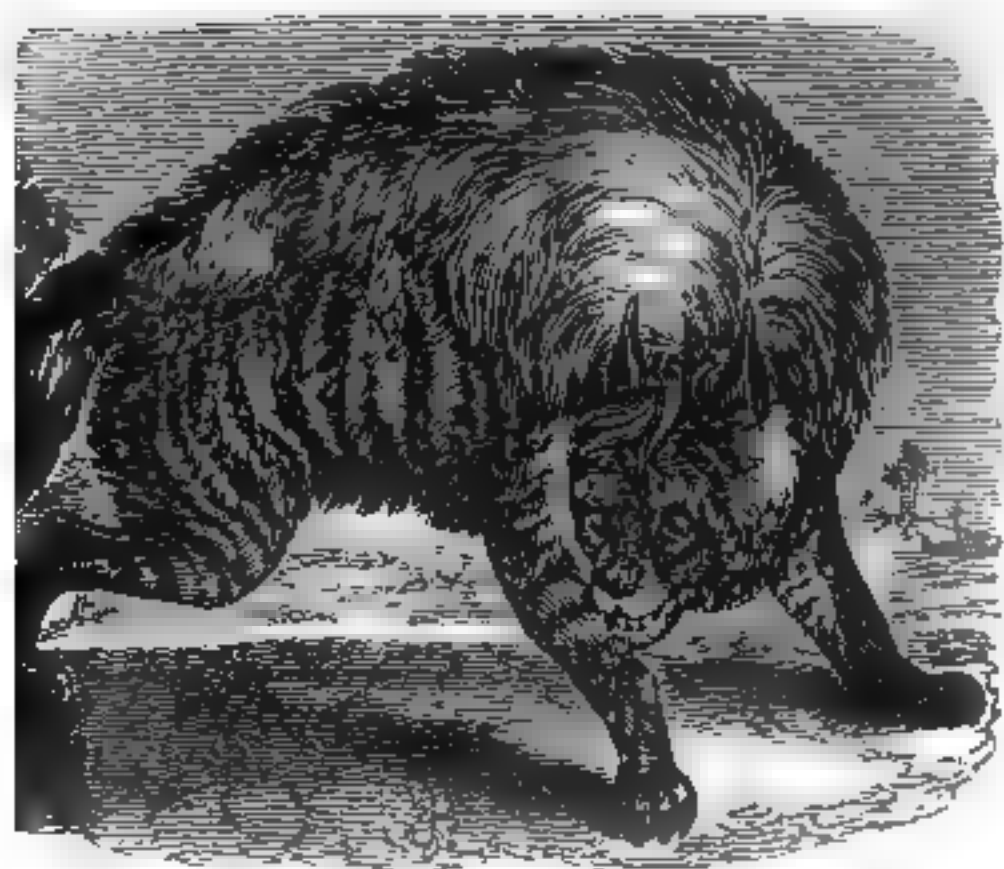
The Caracal, which is the lynx of the ancimon in Barbary, in Arabia, and in the southern and in all those countries which are inhabited the panther, and the leopard: like them it dep for its subsistence; but, unlike them, from its its inferior strength, to procure that prey it h ficulty. Hardly, indeed, has it aught to subsist the more potent carnivorous animals are disp for it. It follows the lion, who, when the immed of his appetite are gratified, is of a dispositio unhostile. From the refuse of what this nobl devoured, the Caracal frequently enjoys a comf When, however, he is left to his own powers he attacks hares, rabbits, and birds: of the lat ceedingly fond, and will pursue them with swiftness to the tops of the tallest trees.

The Caracal is somewhat larger than a fo fiercer and stronger. It has been known to at pieces, and destroy in a few minutes, a lar fighting for his life, defended himself with all It is very difficult to tame this animal; yet if very young, and afterwards reared with care, that it may be trained to the chase, to which

clined, and in which it is sure to succeed, provided it let loose but against such animals as are its inferiors and unable to resist it. Should it be a service of death every expression of reluctance it declines it. It is said that in India they make use of this animal to take rabbits, and even large birds, all of which it surprises and seizes with singular address and facility. It is, however, doubtful whether the Caracal is ever thus employed.

In captivity it is extremely sulky, and stares whenever it is noticed.

THE STRIPED HYÆNA.



ing, and even so singular are the characteristics of the hyæna, that it is hardly possible to be deceived by them. Perhaps, the only quadruped which has but four toes on the fore or hind feet: like the badger it has an appendage under the tail, which does not penetrate into the in-

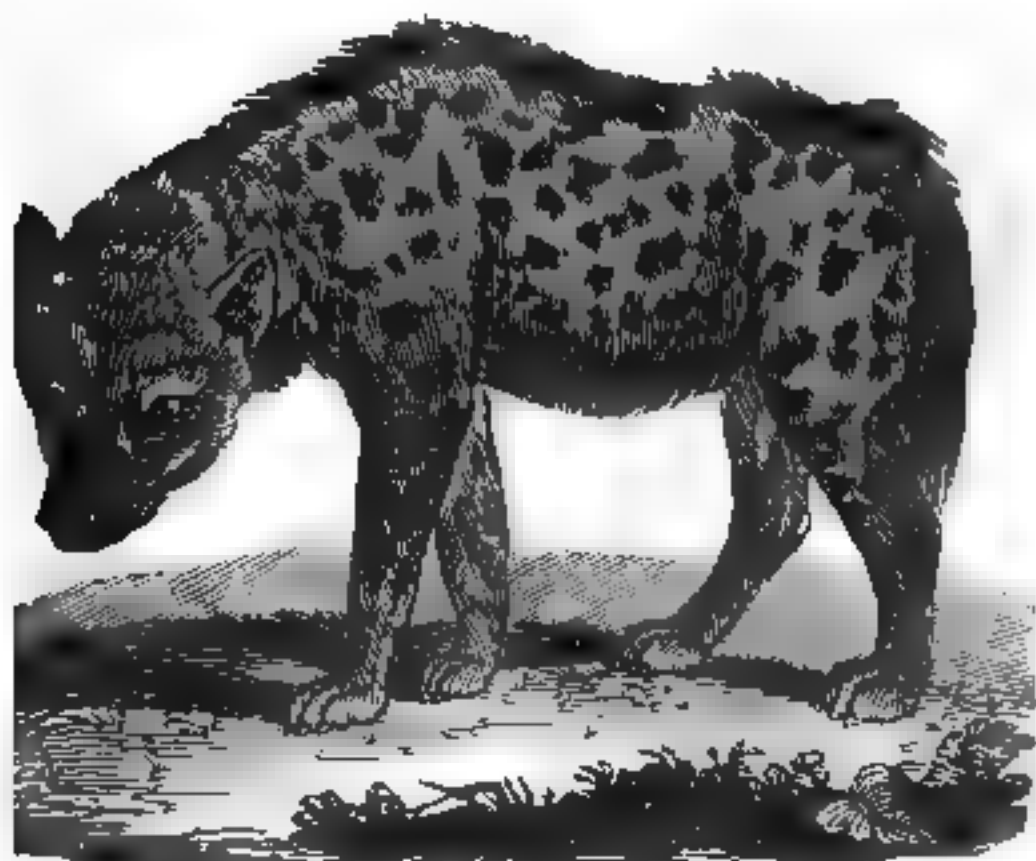
terior parts of the body ; its ears are long, straight, and nearly bare ; its head is more square and shorter than that of the wolf ; its legs, the hind ones especially, are longer ; its eyes are placed like those of the dog ; the hair and mane of a brownish gray, with transverse dark brown or blackish bands on the body, which stripes become oblique on the flanks and the legs. The coat is of two sorts ; fur or wool, in small quantity, and long, stiff, and silky hair. Its height varies from nineteen to twenty-five inches, and its usual length, from the muzzle to the tail, is three feet three inches.

The Striped Hyæna is a native of Barbary, Egypt, Abyssinia, Nubia, Syria, Persia, and the East Indies. It generally resides in the caverns of mountains, in the clefts of rocks, or in dens, which it has formed for itself under the earth. It lives by depredation, like the wolf ; but it is a stronger animal, and seemingly more daring. It sometimes attacks man, carries off cattle, follows the flocks, breaks open the sheep-cotes by night, and ravages with a ferocity insatiable. By night also its eyes shine ; and it is maintained that it sees better than in the day. If we may credit all the naturalists who have treated of this animal, its cry is very peculiar, beginning with something like the moaning of a human being, and ending in a sound which resembles the sobs or reachings of a man in a violent fit of vomiting ; but, according to Kæmpfer, who was an eye-witness of the fact, it sounds like the lowing of a calf. When at a loss for other prey, it scrapes up the earth with its feet, and devours the carcasses both of animals and men, which, in the countries that it inhabits, are interred promiscuously in the fields.

Of few animals, have so many absurd stories been told as of that we are now treating of. It has been affirmed that the neck consisted of but one jointless bone, which

was of great efficacy in magical invocations ; that this
 ire could imitate the human voice ; that it remember-
 e names of the shepherds, called to them, charmed
 , rendered them motionless ; that, at the same time, it
 chase to the shepherdesses ; caused them to forget
 flocks, to be distracted with love, &c. All these
 t surely happen without the intervention of an Hyæna.

THE SPOTTED HYÆNA.



animal is a native of Southern Africa, and abounds
 e neighbourhood of the Cape of Good Hope, where it
 lled the Tiger Wolf. It is somewhat inferior in size
 e Striped Hyæna, but, in its wild state, has the same
 ners and propensities. Its short muzzle is less abrupt-
 uncated, and its ears, short and broad in form, are of a
 ly quadrilateral figure. The general colour of the
 is a dirty yellow, or yellowish brown, and the whole
 y is covered with spots of a blackish brown, excepting

the under part of the belly and of the breast, the inner surface of the limbs and the head. The muzzle is black and the tail covered with long bushy hair of a blackish brown. Like the striped Hyæna, the spotted species has jaws of enormous strength, with which it easily breaks pieces the hardest bones.

It is a common but erroneous idea, that the Hyæna is wholly savage and untameable. Both species have been tamed, and instances are recorded of individuals having manifested all the attachment of a dog. The Striped Hyæna has recently been domesticated in the Cape territory and is considered one of the best hunters after game, as faithful and diligent as any of the common domestic dogs. The truth is, that the Hyæna has a very natural aversion to close confinement, and when exhibited, as generally is, in a narrow cage, he is miserable, and consequently irritable. In a man, similarly situated, the expression of anger would be praised as a generous hatred to slavery.

The Hyæna was undoubtedly once an inhabitant not only of the European continent, but also of the British Islands. His bones have been found in various parts of England and Wales, and particularly in a cave at Killymoorside, in Yorkshire. That cave, which was evidently the abode of numerous Hyænas, likewise contains bones of the elephant, the rhinoceros, the hippopotamus, the horse, the ox, the bear, various kinds of deer, the fox, the water rat, and several birds.

The depredations of the Hyæna are not confined to the remains of the dead. There are periods when they come bold from extreme hunger, and will carry off very large animals, and even human beings, with the most daring ferocity. Major Denham says, "at this season *of the year*," (August), "there are other reasons, besides

of rain, which induce people to remain in their habitations. When the great lake overflows the immense tract which, in the dry season, affords cover and food, its coarse grass and jungle, to the numerous savage animals with which Bornou abounds, they are driven from the wilds, and take refuge in the standing corn, and sometimes in the immediate neighbourhood of the towns. Rhinoceroses had already been seen at Dowergoo, scarcely miles from Kouka; and a female slave, while she was returning home, from weeding the corn, to Kowa, not more than ten miles distant, had been carried off by a lion.

The Hyænas, which are every where in legions, grew so extremely ravenous, that a good large village, where I sometimes procured a draught of sour milk on my hunting excursions, had been attacked the night before my last visit, the town absolutely carried by storm, withstanding defences nearly six feet high of branches of the prickly tulloh, and two donkies, whose flesh these animals are particularly fond of, carried off, in spite of the efforts of the people. We constantly heard them close to the walls of our own town at nights; and on a gate being suddenly open, they would enter and carry off any unfortified animal that they could find in the streets."

In this strong desire for food, approaching to the excess of the most desperate craving, the Hyæna, although generally fearful of the presence of man, is an object of natural terror to the African traveller. Bruce relates that one night in Maibsha, in Abyssinia, he heard a noise near his tent, and, getting up from his bed, saw two eyes glaring upon him. It was a powerful Hyæna, which had been attracted to the tent by a quantity of sheep which he had seized upon, and was bearing off in triumph.

He had a desperate encounter with the beast, and succeeded in killing him. In the neighbourhood of

the ruins of those cities on the northern coast of which, in ancient times, were the abodes of wealth and splendour, and witnessed the power of the Ptolemic Cæsars, the Hyæna is a constant resident, and increases the sense of desolation by the gloominess of his howl. At Ptolemeta, where there are many remains of architectural magnificence, the fountains which were constructed for the accommodation of an enormous population are now useless, except to the wandering Arab, and the jackal and Hyæna, who stray amongst these ruins at sunset, to search for water at the deserted reservoir. Seldom does the Hyæna molest the traveller in these deserts; but his howl, or the encounter of his fierce and sullen eye, is always alarming. Captain Beechey "although we had very frequently been disturbed by the howls of the Hyænas, we never found that familiarity with their howls, or their presence, could render their near approach an important occurrence; and the hand would instinctively reach its way to the pistol, before we were aware of the interruption; whenever either of these interruptions obtruded themselves closely upon us, either by night or by day." Such encounters are generally without any fatal results, for man does not commence the attack; the Hyæna sets up a howl, and doggedly walks away, with his peculiar limping motion, which gives him an appearance of lameness. When he is attacked, his resistance is as fierce and obstinate.

The Hyæna has always been an object of aversion to mankind; and this feeling has been kept up, not only by the showman's stories of "that cruel and untameable beast that never was yet tamed by man," but by writers of natural history, from the days of Pliny to those of Gold-

* Beechey.

pleasant compiler tells us, "no words can give idea of this animal's figure, deformity, and More savage and untameable than any other seems to be forever in a state of rage or With regard to its deformity, we are rather with Sir Thomas Brown, that "there is a gentleness in the works of God; and therefore no deformity in any of species of creature whatsoever:" and, "cannot tell by what logic we call a toad, an elephant ugly, they being created in those shapes and figures which best express those actions and inward forms."* That the Hyæna can be tamed most completely and extensively so, there can

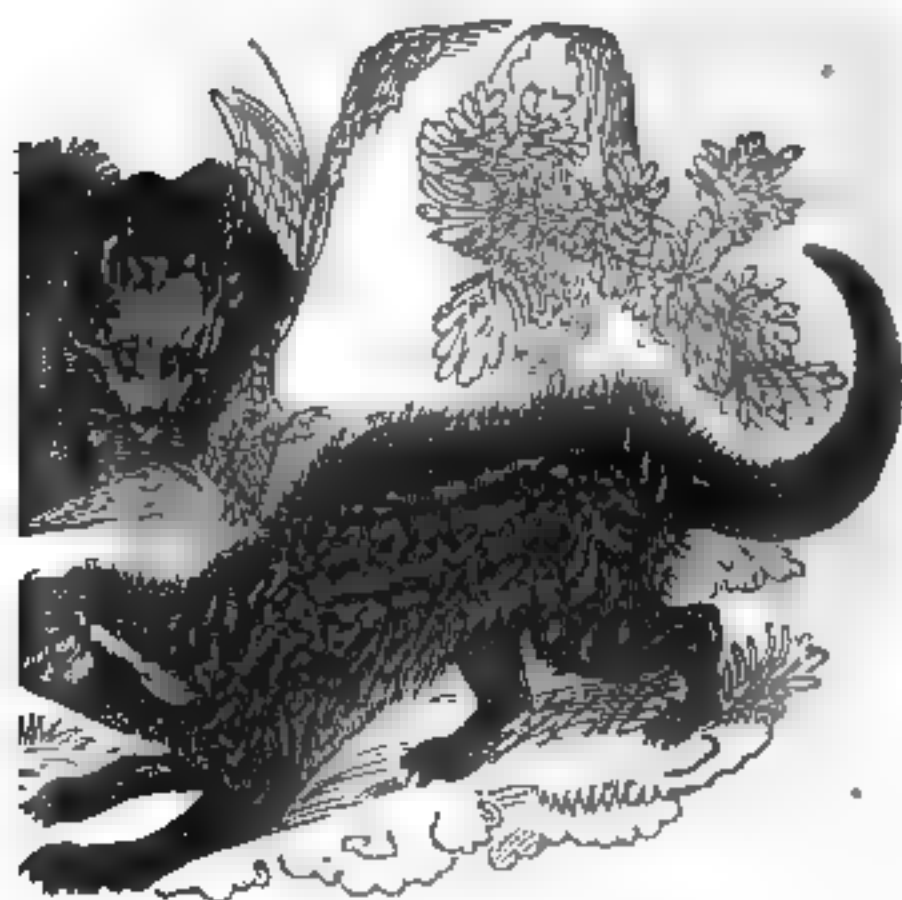
"The cadaverous *crocota*," (the spotted Hyæna), Barrow, in his Travels in Southern Africa, has been *domesticated* in the Snewberg, where it has proved one of the best hunters after game, and as diligent as any of the common sorts of dogs." Bishop Heber saw a gentleman in India, who had a Hyæna for several years, which followed about like a dog, and fawned on those with whom it was acquainted; and the Bishop mentions this as an example of "how much the poor Hyæna is wronged, when described as untameable." M. F. Cuvier mentions an animal of this species that had been taken at the Cape, and was tamed without difficulty. He was under a complete command over his affections. He was let out from his cage, and quietly walked into a room where he was retaken without offering any resistance; yet the rage of this animal was occasionally shown when strangers approached it. The fact is, the Hyæna is exceedingly impatient of confinement;

* *Religio Medici*, § 16.

and feels a constant irritation at the constraint which, in the den of a menagerie, is put upon his natural habits. An individual at Exeter 'Change, some years ago, was so tame, as to be allowed to walk about the exhibition-room. He was afterwards sold to a person, who permitted him to go out with him into the fields, led by a string. After these indulgences, he became the property of a travelling showman, who kept him constantly in a cage. From that time his ferocity became quite alarming; he would allow no stranger to approach him; and he gradually pined away and died. This is one, out of the many examples, of the miseries which we inflict upon animals, through an ignorance of their natural habits: and the same ignorance perpetuates delusions, which even men of talent, like Goldsmith, have adopted; and which still, in the instance before us, leads many to say, with him, "though taken ever so young, the Hyæna cannot be tamed." It is very doubtful whether any animal, however fierce, is incapable of being subjected to man. Mr. Barrow procured in Africa a young leopard, which he says "became instantly tame, and as playful as the domestic kitten." He adds, "most beasts of prey, if taken young, may almost instantly be rendered tame. The fierce lion, or the tiger, is soon reconciled to a state of domestication than the timid antelope." And this is evidently a most wise arrangement of Providence, in order that the progress of civilization, with the dominion which man has over the beasts of the field, shall not necessarily exterminate the races of the inferior animals. The fierce buffalo of the African plains, by an intermixture of breeds, and by training, becomes the patient ox of European communities; the Hyæna assists the colonists of the Cape in the business (for to them it is a business) of the chase; the hunting leopard renders the same service to the natives of Hindostan; and the Esqui-

we have already seen, is in all probability, state of servitude.

THE CIVET.



ity of naturalists have been of opinion, that one species of animals that furnish the perfume by the name of civet. Two animals that further, are easily distinguishable.

of these animals I have appropriated its name of Civet; and to the second, for the sake of distinction, have given that of zibel.

This animal differs from the Civet, in having a snout flatter, more slender, and less thick, a snout flatter, more slender, and concave at the upper part; its hair is much softer; it has no mane, no black under the throat, the cheeks. All these characteristics are very remarkable in, the Civet. Some

travellers had already suspected that there were two species of Civets; but no person had distinguished them with sufficient accuracy to describe them.

These animals have been called *Musk Cats*, or Civet Cats; yet they are not of the cat species; which, however, they resemble in some zoological points, and in their activity, and their predatory, sanguinary, and nocturnal habits. They somewhat resemble the fox, especially in the head. Their coat is diversified with stripes and spots; a circumstance which has occasioned them to be mistaken for small panthers, by persons who had only seen them at a distance. In every other respect, however, they differ from the panther.

The Civet is from two to three feet in length, stands from ten to twelve inches high, and has a tail half the length of its body. The hair is long, and the ground colour of it is a brownish gray, interspersed with numerous transverse interrupted bands or irregular spots of black. Along the centre of the back, from between the shoulders to the end of the tail, is a kind of mane, which can be erected or depressed as the animal pleases, and which is formed of black hairs, longer than those of the body. The sides of the neck and the upper lip are nearly white. The legs and the greater part of the tail are perfectly black; there is a large black patch round each eye, which passes then to the corner of the mouth; and two or three bands of the same colour stretch obliquely from the base of the ears towards the shoulders and neck, the latter of which is marked with a black patch.

The perfume of the Civet is very strong, and that of the zibet is so to an excess. This humour is found in the opening which each of these animals has in the neighbourhood of the genitals; and though the odour is so strong, it is yet agreeable, even when it issues from the body of the

The perfume of the Civet we must not confound with musk, which is a sanguineous humour obtained from the Civet, altogether different from either the Civet or the

Civets, though natives of the hottest climates of Africa and of Asia, are yet capable of living in temperate, even in cold countries, provided they are carefully defended from the injuries of the air, and provided with delicious and esculent food. In Holland, where no small emolument is derived from their perfume, they are frequently

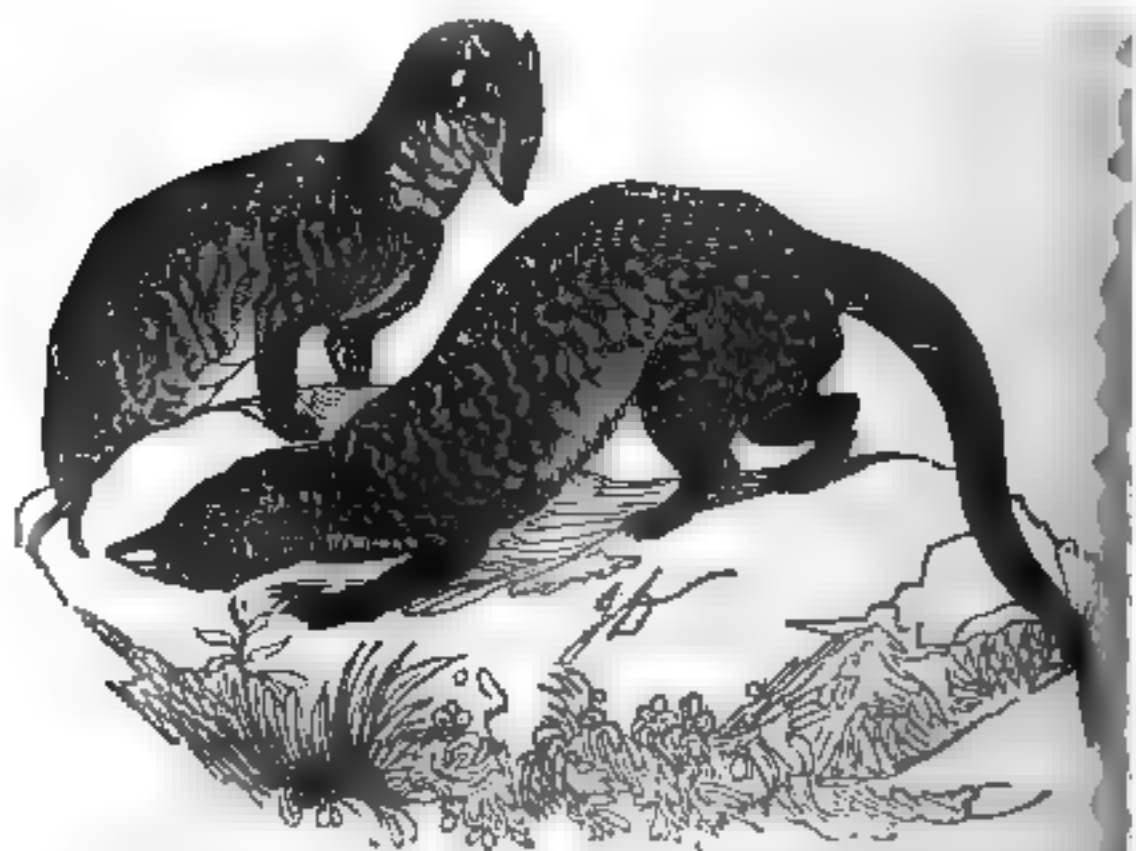
The perfume of Amsterdam is esteemed preferable to that which is brought from the Levant, or the Indies, is generally less genuine. That which is imported from Guinea, would be the best of any, were it not that the Europeans, as well as the Indians and the people of the East, adulterate it with mixtures of laudanum, storax, and balsamic and odorous drugs.

Those who breed these animals for the sake of their perfume, put them into a long and narrow sort of box, in which they cannot turn. This box the person who is employed to collect the perfume opens behind, for this purpose twice or thrice a week; and, dragging the animal backward by the tail, he keeps it in position by a bar before. This done, he takes out the animal with a small spoon, carefully scraping with it, all the interior coats of the pouch. The perfume contained is put into a vessel; and every care is taken that it be closely shut.

The quantity which a single animal will afford, depends upon its appetite, and the quality of its nourishment. It is more in proportion as it is more delicately and constantly fed. Raw flesh hashed small, eggs, rice, small birds, young fowls, and particularly fish, are the food which the Civet most delights in.

As to the rest, the Civet is a wild, fierce animal, and though sometimes tamed, is yet never thoroughly familiar. Its teeth are strong and sharp; but its claws are feeble and blunt. It is light and active, and lives by prey, pursuing birds, and other small animals, which it is able to overcome. It generally attacks at night, and by surprise. They are sometimes seen stealing into yards and outhouses like the fox, in order to carry off poultry. Their eyes shine in the night; and it is very probable that they see better by night than by day. When they fail of animal food, they are found to subsist upon roots and fruits. They very seldom drink; nor do they ever inhabit humid ground but in burning sands, and in arid mountains, they cheerfully remain.

THE JAVANESE CIVET

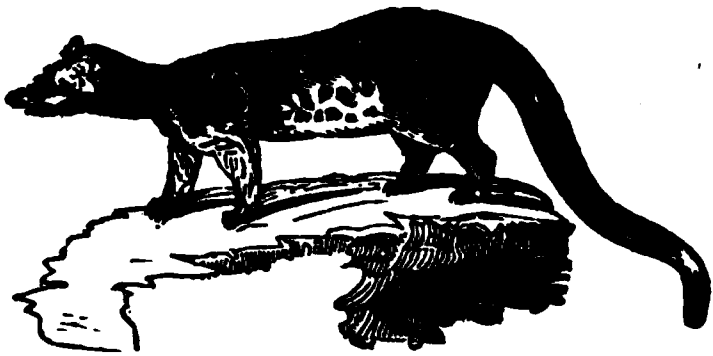


DIFFERS considerably from the common Civet. The body is narrow, compressed, and higher behind than before, is from fifteen to eighteen inches long. The back is strong

d. The muzzle is narrow and tapering; the ears are rounded; the profile forms a perfectly straight line; the tail, tapering gradually to the tip, is as long as the body, and is marked with eight or nine broad black bands which alternate with as many of a grayish hue. A lighter gray than that of the Civet composes the ground colour; there is a broad longitudinal dorsal line of black, and on each side two or three narrower black lines, consisting of confluent spots. Over the rest of the body black spots are thickly but rather irregularly scattered, so as to constitute a series of flexuous dotted lines. The sides of the neck above is occupied by a deep longitudinal black band, below, there is a second, which is more obliquely directed. The head is grayish, and has no spots; and the feet are externally black.

The following extract is from the "Tower Menagerie": "Like the other animals of its group, its habits are prey-like; in confinement it retains much of its original ferocity, and is extremely spiteful and savage. The two individuals from which our figure was taken have inhabited the Menagerie for nearly twelve months; they are males, and occupy different dens. They are fed, like the preceding, and indeed like all the carnivorous quadrupeds which it remains to mention, on a mixture of vegetable and animal food; and deposit large quantities of musk, which strongly impregnates the air of the apartments in which they are kept. This perfume is highly esteemed by the Javanese, who apply it not only to their robes, but also to their persons. Even the apartments and furniture of the natives of rank are generally scented to such a degree as to be offensive to Europeans."

THE GENET



Is an animal smaller than the civets. It has a long short legs, a sharp snout, and a slender head. Its fur, which is exceedingly smooth and soft, is of an ash colour, glossy and marked with black stripes, which are separate upon the sides, but which unite upon the back. It has also upon the neck a kind of mane, or longish hair, which forms a long streak from the head to the tail, which last is as long as the body, and is marked with seven or eight rings, from the insertion to the tip, which are alternately black and white.

The Genet has under the tail, and in the very same place with the civets, an opening, or pouch, in which is separated a kind of perfume resembling civet, but much stronger, and apt sooner to evaporate. It is an animal somewhat larger than the martin, which it strongly resembles not only in the form of the body, but also in disposition and habit, and from which it seems chiefly to differ in being more easily tamed. It is a native of Spain, Africa, and the south of Asia.

THE PARADOXURUS

APPROACHES closely to the genets and civets in its general form and habits; so closely, indeed, that Buffon *classed* it with the former, under the name of Genet of *France*. In its teeth, toes, and nails, and the retr

power of the latter, it is nearly similar to them; but it is a plantigrade animal, has no secretory pouch, and the tail, which is as long as the body, and is flattened above and below, has one great singularity; namely, that the animal is able to roll it up into a spire, commencing from above downwards, even to the very base.

The *Paradoxurus Typus* is a native of the East Indies and the Oriental Archipelago. Marsden calls it the *Mung*, and the Javanese give it the name of *Luwach*. Its length, including the tail, is about three feet. Grayish black, with a tinge of yellow, is its general colour. It has a broad dorsal black line, and two or three narrower distinct black lines on the sides. The underjaws, the legs, and the major part of the tail are also black. Under and above each eye is a white spot.

Little is known of its habits in a state of liberty. As a captive it is sullen, irascible, and unsusceptible of affection.

THE PREHENSILE PARADOXURUS.

This animal, a native of Bengal, has its fur of a greenish yellow. The dorsal line, the end of the tail, and the paws are black. Near the back there are two lines of lengthened black spots, and on each side many small orbicular spots.

CHAP. XV.

*Of the Peccary, or Mexican Hog...Of the Ternate Bat...
The Spectre....The Ant-Eaters...The Short and Long-tailed
Manis...The Armadillo...The Spotted Cavy...The Opossum
...The Marmose...The Cayopolin...The Flying Opossum*

THE PECCARY, OR MEXICAN HOG.

AMONG the animals of the New World, we meet with few species more numerous or more remarkable than that of the Peccary, or Mexican Hog. At the first glance, the animal resembles our wild boar, or rather the hog of Sicily, which, like our domestic hog, as we have already observed, is nothing more than a variety of the wild boar, or wild hog; and for this reason it has been called the boar or hog of America. The Peccary, however, is of a distinct species, and differs from the hog in a number of characteristics, both external and internal. Its head is shorter and broader; it has only four incisor teeth in the upper jaw instead of six; it has only three instead of six toes on the hind feet; its legs are slenderer; in the stomach and intestines there is a difference of conformation; the tail is extremely short, remarkably flat, and completely peniculous; and its bristles are much stronger than those of the wild boar: and, lastly, it has, upon that part of the body which borders upon the buttocks, an opening from which there is discharged an ichorous humour of a very disagreeable smell. The Peccary is the only animal which has an opening in this region of the body. In the civets, the badger, and the genet, the reservoir for the perfume is situated beneath the parts of generation; and in the most animals we find it under the belly.

The Peccary may be rendered a domestic animal, like the hog, and has pretty nearly the same habits and natural inclinations. It feeds upon the same aliments; and its flesh, though more dry and lean than that of a hog, is not unpalatable. The female, however, breeds only once a year, and has but two young ones at a birth.

These animals are extremely numerous in all the parts of South America. There are two species: the Coloured Peccary, and the White-lipped Peccary. The former is not a migratory animal, but usually lives in the forest where it is produced, and is generally met with in pairs or in small families. It is the smallest of the two species, seldom measuring three feet in length, or weighing more than fifty pounds. Its general colour is a yellowish gray, with the exception of the legs, which are nearly black; and it has a somewhat erectile mane on the back of the neck, composed of a row of long black bristles.

The White-lipped Peccary is much larger than the other species, as it not unfrequently reaches a length of three feet and a half, and a weight of a hundred pounds. It is thicker and stouter in its proportions, has a longer and thicker mane, and has less of the grayish tinge. "Unlike the former species, the White-lipped Peccaries," says the author of *The Gardens and Menagerie of the Zoological Society*, "congregate in numerous bands, sometimes amounting, it is said, to more than a thousand individuals of all ages. Thus united, they frequently traverse extensive districts, the whole troop occupying an extent of a league in length, and directed in their march, if the accounts of the natives are to be credited, by a leader, who takes his station at the head of the foremost rank. Should they be impeded in their progress by a river, the chief stops for a moment, and then plunges boldly into the stream, and is followed by all the rest of the troop. The breadth of

the river or the rapidity of the current appear to be but trifling obstacles in their way, and to be overcome with the greatest facility. On reaching the opposite bank, they proceed directly on their course, and continue their march even through the plantations which, unfortunately for the owners, may happen to lie in their way; and which they sometimes completely devastate by rooting in the ground for their favourite food, or devouring such fruits as they find there. If they meet with any thing unusual on their way, they make a terrific clattering with their teeth, and stop and examine the object of their alarm. When they have ascertained that there is no danger, they continue their route without further delay; but if a huntsman should venture to attack them when they are thus assembled in large numbers, he is sure to be surrounded by multitudes and torn to pieces by their tusks, if he is so unwise as neglect his only chance of escape, which consists in climbing a tree, and thus getting fairly out of their reach. The smaller bands are by no means equally courageous, and always take to flight at the first attack.

“M. Sonnini relates that he was often, in the course of his travels in Guiana, surrounded by a troop of Peccaries infuriated with the havoc made by the muskets of himself and his companions. Mounted upon a tree, he was enabled to observe their motions, and to notice the manner in which they encouraged, by their grunts and by the rubbing of their snouts together, those among them who were injured by the shots which were poured on them from above. With erected bristles, and eyes sparkling with rage, they still maintained their ground; and it was sometimes only after two or three hours' incessant firing that they were at last compelled to quit the field of battle, to leave the bodies of the dead to the mercy of the conquerors. These days of victory over the Peccaries

ays days of abundance for the traveller in the forests, who has no other resource except an enormous gridiron is immediately constructed of sticks fixed in the earth, and three feet in diameter, in which a quantity of small branches are placed in a spiral direction. On these the Peccaries are deposited, being cut in pieces, and are cooked by a fire which is kept up during the whole night."

In this country, the Peccary is rather fond of the high parts, than of the low and level grounds; it is not found either in the marshes nor the mud, like the muskrat, but keeps among the woods, where it subsists upon roots, and vegetables; it is also an unceasing enemy to the lizard, the toad, and all the serpent kinds. In the uncultivated forests of the New Continent soon as it perceives a serpent or a viper, it attacks it with its fore hoofs and teeth, skins it in an instant, and devours the flesh. They commit great havoc upon the sugar-canes, maize, manihot, and potato crops. When they follow the dam, and do not separate until they have come to perfection. If taken at a very early age, they are easily tamed, and soon lose all their wildness; they, however, never display any remarkable docility. They only continue to do no mischief, may be permitted to run tame, without any dangerous consequences. They seldom return home; they return of themselves to the sty, and quarrel among each other, except when they are fed in common. When enraged, they draw with great force, and their bristles point upwards. On such occasions, can these be said so much to resemble the bristles of the wild boar as the sharp arched hedgehog.

Waterton, who made several excursions into

the forests of Guiana, tells us that the Macoushi Indians are accustomed to kill birds and other game, with arrows dipped in poison called *wourali*. This is made from a plant of that name, mixed with several other ingredients, and prepared with magical ceremonies and incantations. A large portion of the food of the natives consists of Parrots slain by the poisoned arrows. The bow is commonly used, and the animal seldom runs two hundred paces after being struck before he dies by the effect of the sulphuric poison. It is remarkable that the flesh of creatures killed in this manner, is perfectly wholesome. Beside the blowgun the Indians often use a tube made of a reed eleven or twelve feet in length, through which the arrow is sent



the breath with great precision and considerable force. Birds are generally killed in this way, and sometimes larger animals.

For a more particular account of the *Wourali* poison we refer our readers to Capt. Waterton's book.

E ROUSSETTE, GREAT TERNATE BAT, OR VAMPYRE BAT;*

: ROUGETTE, OR LESSER TERNATE BAT; AND THE
SPECTRE BAT.

Roussette and the Rougette seem to form two distinct species, which, however, are so full of resemblances to each other, that they ought not to be presented asunder. The latter differs from the former solely in the size of the body and the colours of the hair. The Roussette, whose hair is of a reddish brown, is in length nine inches from the tip of the nose to the insertion of the tail, and in breadth of the wings or even four feet, when the membranes, which serve as wings, are fully extended. The Rougette, whose hair is of a reddish ash-colour, is hardly more than five inches long and a half in length, and two feet in breadth; and its neck is half encircled with a stripe of hair of a lively orange intermixed with orange colour, of which we perceive no vestige on the neck of the Roussette. They both belong nearly to the same hot climates of the Old Continent. We meet with them in Madagascar, in the island of Bourbon in Ternate, in the Philippine and other islands of the Indian Archipelago, where, indeed, they seem to be more numerous than in the neighbouring continents.

The smell of these creatures is ranker than that of a skunk, yet the Indians consider them as delicious food, and the French who reside in the Isle of Bourbon even boil them in their soup to give it a relish! The hair of the Vampyre Bat, interwoven with threads of cyperus squa-

The name of Vampyre Bat was also given to the Spectre Bat by the French, but is now appropriated to the Roussette. The two species differ materially in their habits.

mosus, is used by the natives of New Caledonia for making ropes and the tassels of their clubs.

In the hotter countries of the New World, and in some of the islands of the Pacific Ocean, we likewise meet with another flying quadruped, of which we know not the American name, but to which I will affix the denomination of Spectre, because it sucks the blood of men, and of animals, while they are asleep, without causing even sufficient pain to awake them. This American animal is of a species different from those of the Roussette and the Rougette, which are both to be found solely in Africa, and in the southern parts of Asia.

The Spectre is smaller than the Rougette, which is itself smaller than the Roussette. The former, when it flies, seems to be of the size of the pigeon; the second, of the size of a raven; and the third, of the size of a large hen. Of both the Roussette and the Rougette the head is tolerably well shaped; the ears are short, and the nose is very round, and nearly in form like that of a dog. Of the Spectre, on the contrary, the nose is more elongated; the aspect is as hideous as that of the ugliest Bats; the head is unshapely, and the ears large, very open, and very straight; its nose is disfigured; its nostrils resemble a funnel, and have a membrane at the top, which rises up in the form of a sharp horn, or cock's comb, and greatly heightens the deformity of its face.

There is no doubt, therefore, but that the species of the Spectre is different from those of the Roussette and the Rougette. It is an animal not less mischievous than it is deformed; it is the pest of man, the torment and destruction of animals. In confirmation of this truth, a more authentic testimony cannot be produced than that of M. de la Condamine. "The Bats," says he, "which suck the blood of horses, of mules, and even of men, when they are

ward against it by sleeping under the shelter of a palm-tree, which are a scourge common to most of the hot countries of America. Of these there are some of a monstrous size. In Java, and several other places, they have entirely destroyed the large cattle which the missionaries had brought over, and which had begun to multiply."

The Roussette and Rougette are larger, stronger, and as yet more mischievous than the Spectre; but it is in the same force, and in the day as well as in the night, that they commit hostilities. Fowls and small animals are the objects of their destructive fury; they even attack men, and bite their faces most cruelly.

These Bats are animals carnivorous, voracious, and possessed of an appetite for every thing that offers. In a word, of flesh or fish, they feed on vegetables and fruits of every kind. As they are fond of the juice of the palm-tree, so it is easy to take them by placing in the neighbourhood of their retreat a few vessels filled with palm-juice, or any other fermented liquor, with which they regale themselves. They fasten to, and suspend themselves from, trees with their claws. They are usually in troops, and more so by night than by day; places which are much frequented they shun; and their favourite haunts are in the deserted parts of islands.

We have frequently thought it worth while to examine whether it is possible that these animals should suck the blood of a person asleep, without causing, at the same time, a sensation so sensible as to awake him. Where they cut the skin with their teeth or with their claws, the pain of the wound would effectually rouse any of the human species, whether soundly asleep. With their tongue only, then, it is possible for them to make such minute apertures in the skin as to imbibe the blood through them, and to open the wound without causing an acute pain.

The tongue of the Spectre I have not had an opportunity to observe ; but that of several Roussettes, which Mr. Daubenton has attentively examined, seems to indicate the possibility of the fact. It is sharp, and full of prickles directed backward ; and it appears that these prickles, or points, from their exceeding minuteness, may be insinuated into the pores of the skin, may enlarge them, and may penetrate them so deep, as to command a flow of blood by the continual suction of the tongue. But we can only conjecture upon a fact of which all the circumstances are imperfectly known to us, and of which some are perhaps exaggerated, or erroneously related, by the writers who have transmitted them to us.

Captain Stedman, while sleeping in the open air in Surinam, was attacked by one of the Spectre Bats. On awaking, about four o'clock in the morning, he was extremely alarmed to find himself weltering in congealed blood, and without feeling any pain. Having started up, he ran to the surgeon, with a firebrand in his hand, and all over besmeared with gore. The cause of his alarm was, however, soon explained. After he had applied some tobacco ashes to the wound, and had washed the gore from himself and his hammock, he examined the place where he had lain, and observed several small heaps of congealed blood upon the ground ; on examining which, the surgeon judged that he had lost at least twelve or fourteen ounces. Captain Stedman says, that these animals, knowing by instinct that the person they intend to attack is in a sound slumber, they generally alight near the feet ; where, while the creature continues fanning with his enormous wings, which keeps the person cool, he bites a piece out of the tip of the great toe, so very small that the head of a pin could scarcely be received into the wound, which is consequently not painful. Yet, through this orifice, he sucks

blood until he is obliged to disgorge. He then begins again, and thus continues sucking and disgorging till he is scarcely able to fly; and the sufferer has often been obliged to sleep from time into eternity. The Spectre generally bites in the ear, but always in places where blood will flow spontaneously.

The following extract is from Waterton:

We will now take a view of the Vampyre. As there is a free entrance and exit to the Vampyre in the loft, where I slept, I had a fine opportunity of paying attention to this nocturnal surgeon. He does not always live on land. When the moon shone bright, and the fruit of the banana tree was ripe, I could see him approach and retreat. He would also bring into the loft from the forest, a small round fruit, about the size of a nutmeg. There was something also in the blossom of the Sawarri nut-tree which was grateful to him; for on coming up Waratilla Creek in a moonlight night, I saw several Vampyres flitting round the Sawarri tree, and every now and then the blossoms, which they had broken off, fell into the water. I concluded that the Vampyres pulled them from the tree, either to get at the incipient fruit, or to catch the insects which often take up their abode in flowers.

The Vampyre in general measures about twenty-six inches from wing to wing extended, though I killed one which measured thirty-two inches. He frequents old houses, and hollow trees; and sometimes a cluster of them may be seen in the forest, hanging head downwards from the branch of a tree.

The Vampyre has a curious membrane, which rises from the nose, and gives it a singular appearance. There are two species of Vampyre in Guiana, a larger and a smaller. The larger sucks men and other animals; the smaller is to confine *himself chiefly to birds*. I learnt from a

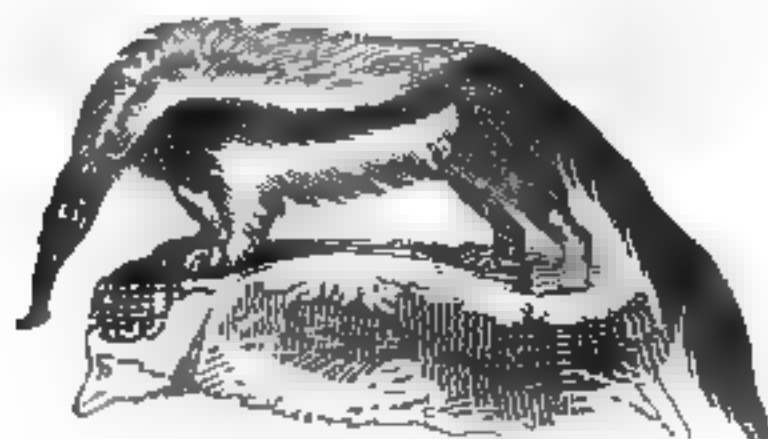
gentleman high up on the river Demerara, that he was completely unsuccessful with his fowls on account of the small Vampyre. He showed me some that had been sucked the night before, and they were scarcely able to walk.

Some years ago, I went to the river Paumaron with a Scotch gentleman, by name Tarbet. We hung our hammocks in the thatched loft of a planter's house. Next morning, I heard this gentleman muttering in his hammock, and now and then, letting fall an imprecation, just about the time he ought to have been saying his morning prayers. "What is the matter, Sir," said I softly; "is any thing amiss?" "What's the matter?" answered he sullenly; "why the Vampyres have been sucking me to death." As soon as there was light enough, I went to his hammock, and saw that it was much stained with blood. "There," said he, thrusting his foot out of the hammock, "see how these infernal imps have been drawing my life's blood!" On examining his foot, I found the Vampyre had tapped his great toe: there was a wound somewhat less than that made by a leech; the blood was still oozing from it: I conjectured he might have lost from ten to twelve ounces of blood. Whilst examining it, I think I put him in a worse humour by remarking, that an European surgeon would not have been so generous as to have bled him without making a charge. He looked up in my face, but did not say a word; and I saw he was of opinion that I had better have spared this piece of ill-timed levity."

THE TAMANOIR, THE TAMANDUA, AND THE FOURMILLIER, OR ANT-EATER.

SOUTH AMERICA produces three species of animals, with a long snout, a small mouth, and no teeth: their tongues, of

ound form, are remarkably long; with which they catch ants, which are their principal food. On coming to an ant hill, the animal scratches it up with his claws, and then protrudes his slender tongue, which has the appearance of an exceedingly long earth-worm. It is covered with a viscous saliva. To this the ants adhere, and, by retracting it, he swallows thousands of them. He also runs up the nests of wood lice, and often climbs the trees in pursuit of them, and of the wild bees and their honey. The first of these Ant-eaters is that which the Brazilians call *Tamandua Guacu*, or Great *Tamandua*, to whom the French settled in America have given the name of *Tamandir*. The English call it the Great Ant-eater. This



animal is about four feet in length from the extremity of the snout to the origin of the tail; his head is fourteen or fifteen inches long, his snout stretches out to a great length; his tail, two feet and a half long, is covered with long hair, which is more than a foot in length; his neck is short; his head narrow; his eyes black and small; his ears round; his tongue thin, more than two feet long, which he folds again in his mouth, after he draws it entirely out. His legs are but one foot high; the fore-legs are a little higher and more slender than those behind; he has round feet; the fore feet are armed with four claws, the two middle ones are the longest; those behind

have five claws. The hair of his head and body is black and white ; this animal turns his tail up on his back, and covers with it his whole body, when he is inclined to sleep, or wants to shelter himself from the rain or the heat of the sun. The long hair of his tail and of his body is not round in all its extent ; it is flat towards the end, and feels like dry grass. He waves his tail frequently and hastily when he is irritated, but it hangs down when he is composed, and he sweeps the way with it as he goes. The Tamanoir walks slowly ; a man can easily overtake him in running : his feet seem less calculated to walk than to climb, and to fasten round bodies ; and he holds so fast a branch or a stick, that it is not possible to snatch either from him.

The second of these animals is that which the Americans call Tamandua. He is much smaller than the Tamanoir ; he is not above eighteen inches from the extremities of the snout to the rump : his head is five inches long, his snout crooked, and underneath flat and long : he has a tail ten inches long, without hair at the end ; his ears are erect, and about an inch in length ; his tongue is round, eight inches long, and placed in a sort of gutter or hollow canal within the lower jaw ; his legs are not above four inches in height, his feet are of the same form, and have the same number of claws as the Tamanoir. He climbs up and holds fast a branch, or a stick, like the Tamanoir, and his march is equally slow. He does not cover himself with his tail, which cannot shelter him, being almost bare ; the hair of the fore part is shorter than that of the Tamanoir : when he sleeps he hides his head under his neck and his fore legs.

The third of these animals is that which the naturalists of Guiana call Watiriwaou ; and the French Fourmillier or Ant-eater. He is still much smaller than the Tamandua.

ing not above six or seven inches in length from the remity of the snout to the tail: his head is two inches g; the snout is not near so long as that of the Taman-, or the Tamandua; his tail is seven inches in length, bent underneath, and bare at the end: his tongue is row, long, and flat; his neck is almost bare; the head large, in proportion to the body; his eyes placed low, a little distance from the corners of the mouth; his ears small, and hidden by the hair; his legs are but three shes in height; the fore feet have no more than two ws, the outward is much longer than the inward one; hind feet have four claws; the hair of the body is about e inches long; he feels smooth; his colour is shining, versified with red and yellow; his feet are not made to lk, but to climb up, and to take hold of branches of es, on which he hangs himself by the extremity of his l.

These three animals, so different in size and proportions of the body, have, nevertheless, many things in common, to conformation and their natural instinct. All three ed upon ants, and suck honey and other liquid and vis- us substances; they gather quickly crumbs of bread and small pieces of meat; they are tamed and domestica- d easily; they can subsist a long while without food; y do not swallow all the liquor which they keep in their uth—one part of it issues out of their nostrils; they mmonly sleep in the day time, and change their station the night; they go so slowly, that a man may overtake an easily whilst running in open ground. The savages t their flesh, which has, however, an unsavoury taste.

The Tamanoir looks at a distance like a great fox, and that reason some travellers call him the American fox: is strong enough to defend himself against a large dog, and even a jaguar; when he is attacked he fights standing

on his hind legs, like the bear, and makes use of his claws, which are murdering weapons, for his protection; afterwards he lies on his back to use his hind legs, in this situation he is almost invincible; he fights with obstinacy till the last extremity, and even after he has his adversary to death, he keeps hold of him a long while. He is covered with long bushy hair, and a very thick skin; besides, his flesh is remarkably hard, and he seldom loses his life in these engagements.

The Tamanoir, the Tamandua, and the Fourmillier, natives of the hottest climates only of America; they are found in Brazil, in Guiana, and in the country of the Amazons, &c; they do not breed in Canada, nor in the other frozen regions of the New World, and do not belong consequently to the Ancient Continent.

We copy the following from "Waterton's Wandering Ant."
 "The ants have their enemies, as well as the rest of animated nature. Amongst the foremost of these stand the three species of Ant-bears. The smallest is not much larger than a rat; the next is nearly the size of a fox; and the third a stout and powerful animal, measuring about six feet from the snout to the end of the tail. He is the most inoffensive of all animals, and never injures the property of man. He is chiefly found in the inner recesses of the forest, and seems partial to the low and swampy parts near creeks, where the Trembling tree grows. There he goes up and down in quest of ants, of which there is never the least scarcity; so that he soon obtains a sufficient supply of food with very little trouble. He does not travel fast; man is superior to him in speed. Without swiftness to enable him to escape from his enemies without teeth, the possession of which would assist his self defence, and without the power of burrowing in the ground, by which he might conceal himself from his

he is still capable of ranging through these wilds in perfect safety; nor does he fear the fatal pressure of a serpent's fold, nor the teeth of the famished jaguar. He has formed his fore-legs wonderfully thick, strong and muscular, and armed his feet with three tremendous and crooked claws. Whenever he seizes an animal with these formidable weapons, he hugs it close to his body, and keeps it there till it dies through pressure, or want of food. Nor does the Ant-bear, in the mean time, suffer from want of aliment, as it is a well-known fact, that he can go longer without food than perhaps any other animal, except the land tortoise. His skin is of a texture which perfectly resists the bite of a dog: his hinder parts are protected by thick and shaggy hair, while his immense tail is large enough to cover his whole body.

The Indians have a great dread of coming in contact with the Ant-bear; and after disabling him in the chase, they never think of approaching him till he be quite dead. It is perhaps on account of this caution, that naturalists have never yet given to the world a true and correct description of this singular animal, or described the peculiar position of his fore-feet when he walks or stands. If in making a drawing from a dead Ant-bear, you judge of the position in which he stands from that of all other terrestrial animals, the sloth excepted, you will be in error. Examine only a figure of this animal, in books of natural history, or inspect a stuffed specimen in the best museums, and you will see that the fore claws are just in the same awkward attitude as those of a dog, or a common bear, when he walks or stands. But this would be an intolerable attitude for the Ant-bear. The length and curve of his claws cannot admit of such a position. When he walks or stands, his feet have somewhat the appearance of lub-hands. He goes entirely on the outer side of his

fore feet, which are quite bent inwards ; the claws collected into a point, and going under the foot. In this position he is quite at ease ; while his long claws are disposed in a manner to render them harmless to him, and are prevented from becoming dull and worn, like those of the dog, which would inevitably be the case, did their point come in actual contact with the ground ; for his claws have not the retractile power which enables animals of the line species to preserve the sharpness of their claws on the most flinty path. A slight inspection of the fore-foot of the Ant-bear will easily convince you of the mistake that artists and naturalists have fallen into ; for you will perceive that the whole outer side of his foot is not deprived of hair, but is hard and callous ; proof positive of its being in perpetual contact with the ground. On the contrary, the inner side of the bottom of his foot is soft and rather hairy.

There is another singularity in the anatomy of the Ant-bear. He has two very large glands situated beneath the roof of the tongue. From these is emitted a glutinous liquid, with which his long tongue is lubricated when he puts it into the ants' nests. These glands are of the same substance as those found in the lower jaw of the woodpecker. The secretion from them when wet, is very clammy and adhesive ; but on being dried, it loses these qualities, and you can pulverize it betwixt your finger and thumb ; so that in dissection, if any of it has got upon the fur of the animal, allow it to dry there, and then it may be removed, without leaving any stain behind. The Ant-bear is a pacific animal. As his habits and haunts differ materially from those of any other animal in the forest, he might live to a good old age, and die at last in peace, were it not that his flesh is good food. On this account the Indian wages perpetual war with him, and as he c

not escape by flight, he falls an easy prey to the poisoned arrow. If he ever be closely attacked by a dog, he throws himself on his back, and if he can catch hold of his enemy with his tremendous claws, the invader is sure to pay for his rashness with the loss of life."



The engraving is copied from an original drawing taken from a fine specimen of the Ant-eater, exhibited in Boston during the last season. It is a faithful portrait, and is the more valuable as the animal died during the last winter, probably owing to the cold. We need add nothing to the minute and accurate description, given above from Capt. Waterton.

We have recently seen a letter from a gentleman in South America, stating that he has two living Ant-eaters in his possession, and we understand they are soon to be sent to this country. We hope that some scientific individual will take the first opportunity, to give us a complete account of this singular species.

THE PANGOLIN AND PHATAGIN; OR, THE SHORT AND LONG-TAILED MANIS.



THESE animals are commonly known under the name of scaly lizards; but we reject this denomination; 1st, because it is a compound; 2dly, because it is ambiguous and applied to both species; 3dly, because it is wrong and imagined; these animals being not only of another kind but even of another class than the lizards, which are oviparous reptiles, while the Pangolin and the Phatagin are viviparous quadrupeds.

All the lizards are wholly covered, even under the belly with a sleek speckled skin, resembling scales; but the Pangolin and the Phatagin have no scales under the throat, on the breast, or the belly: the Phatagin, like all other quadrupeds, has hair on all these under parts of the body; the Pangolin has nothing but a smooth skin without hair. The scales with which all the other parts of the body of these two animals are clothed and covered, do not stick to the skin; they are only fixed and inherent to the underneath; they are moveable, like the prickles of the porcupine. These scales are so large, so hard, and so sharp, that they frighten and discourage all animals from prey; on collision they will strike fire like flint: it is an offensive armour which wounds while it resists.

The most cruel and the most voracious animals, such as the tiger and the panther, make but useless efforts to devour these armed animals; they tread upon them, and

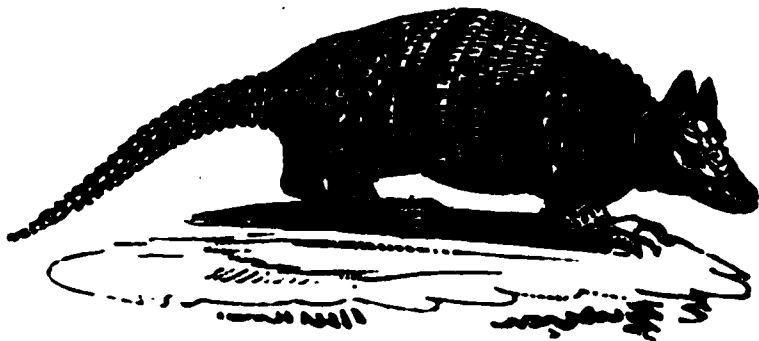
When they attempt to seize them, they are wounded; they can neither terrify them by nor bruise, nor smother them with their weight. The Pangolin and the Phatagin contract themselves do not take, as the hedgehog, a globular and figure; they form an oblong coat of armour; but the long tail remains outward, and encircles the body: this exterior part, by which it seems they might otherwise be seized, carries its own defence; the tail is armed with scales equally hard and sharp with those on the body is clothed, and as it is convex above, and concave below, in the form of half a pyramid, the sides are formed with square scales folded in a right angle, as thick and sharp as the others; so that the tail seems to be still more strongly armed than the body, the under parts of which are unprovided with scales.

The short-tailed Manis, or Pangolin, is larger than the long-tailed kind; his fore-feet are covered with scales, but the Phatagin's feet and part of his fore-limbs, being only clothed with hair. The Pangolin has also larger scales, thicker, more convex, and not so pointed as those of the Phatagin, which are armed with sharp points; on the contrary, the scales of the Pangolin are without points, and uniformly sharp. The Phatagin is hairy upon the belly; and the Pangolin has hair only on that part of his body, but between those scales on his back some thick and long hair issues like the bristles of a hog, which are not found on the back of the Phatagin.

The Pangolin is from six to eight feet in length, including the tail; the tail is very near as long as the body, but appears shorter when young; the scales are not so large nor so thick, and of a pale colour, which is only when the animal is adult; they acquire such a

hardness, that they resist a musket-ball. Like the ant-eaters, the Pangolin and the Phatagin live chiefly upon ants: they have also a very long tongue, a narrow mouth and without apparent teeth: their body and their tail are also very long, and the claws of their feet very near of the same length and the same form, but equal in number. Like the ant-eater the Pangolin is also toothless, and has a long cylindrical tongue, which it uses in the same manner as that animal to procure the insects on which it subsists. When the Pangolin approaches an ant hill, it lies down near it, concealing as much as possible the place of its retreat, and stretching out its long tongue among the ants, keeping it for some time immoveable. These little creatures, allured by its shining appearance, and the unctuous substance with which it is smeared, instantly gather upon it in great numbers; and when the Pangolin supposes that it has a sufficiency, it quickly withdraws the tongue, and swallows them at once. This operation it repeats till it is satisfied, or till the ants, grown more cautious, will be no longer allured to their destruction. The ant-eaters are found in America; the Pangolin and the Phatagin in the East Indies, and in Africa, where the Negroes call them quogelo: they eat their flesh, which they reckon a delicious wholesome food; they also use their scales for different purposes. Their mode of killing it is by beating it with clubs. The Pangolin and the Phatagin have nothing to bidding but their figure; they are gentle, harmless, innocent; they feed upon insects only; they never fast, and can only escape the pursuit of men by hiding themselves in hollow rocks, or in holes which they dig themselves; they are two extraordinary species, not numerous, nor very useful: their odd form seems to place them as an intermediate class betwixt the quadrupeds and the reptiles.

THE ARMADILLO.

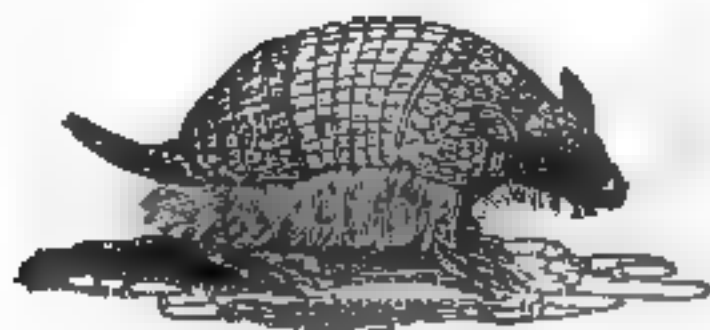


When a quadruped is mentioned, the very name carries the idea of an animal covered with hair; and yet nature, as if determined to deviate from this characteristic uniformity, very frequently astonishes us by uncommon productions. The winged animals, which we look upon as the first class of beings of nature, and who are, next to man, the most remarkable beings of this world, are not superior in every thing, separated by constant attributes. The first of these attributes, which constitutes their name, and which consists in having four feet, is common to lizards, frogs, &c. They, however, differ from the quadrupeds in many other respects, so as to make a separate class from them. The second general property, to produce young alive, is not peculiar to quadrupeds, since it is common with whales and other fishes of that class. And the third attribute, that of being covered with hair, exists not in several species, and cannot be excluded from the class of the quadrupeds, this characteristic excepted, they agree with them in other respects.

THE SIX-BANDED ARMADILLO.

Under the general name of Armadillo, we may reckon several species which seem to us really distinct; in all of them the animal is protected by a crust resembling bone; it covers the head, the neck, the back, the flanks, the but-

tocks, and the tail to the very extremity. This crust is covered outwardly by a thin skin, sleek and transparent; the only parts that are not sheltered by this buckler are the throat, the breast, and the belly, which presents a grainy skin, like that of a plucked fowl; and, in considering these parts with attention, you will perceive the appearance of scales which are of the same substance as



crust. This crust is, however, not of one piece, like of the turtle; it consists of several parts joined to each other by as many membranes, which put this armor in motion. The number of these natural bands does not depend on the age of the animal; for the young Armadillo and the adults have in the same species the same number. Father d'Abbeville has distinguished six species of Armadillo, but the principal difference between them consists in the number of bands or divisions in the armor of the different species. The Six-banded Armadillo differs from its fellows in, being also of a smaller size, not larger than that of a young pig, and in its tail being shorter.

The Armadillos in general are innocent, harmless animals; if they can penetrate into gardens, they will destroy melons, potatoes, pulse, and roots. Though used originally to the hot climates of America, they live in temperate regions: I saw formerly one in Languedoc, which was at home, and went every where without doing any damage or mischief; they walk quickly, but they can neither run, nor climb up trees; so they cannot escape by flight; they have then no other resource but to hide themselves in their holes, or, if they are at too great a distance

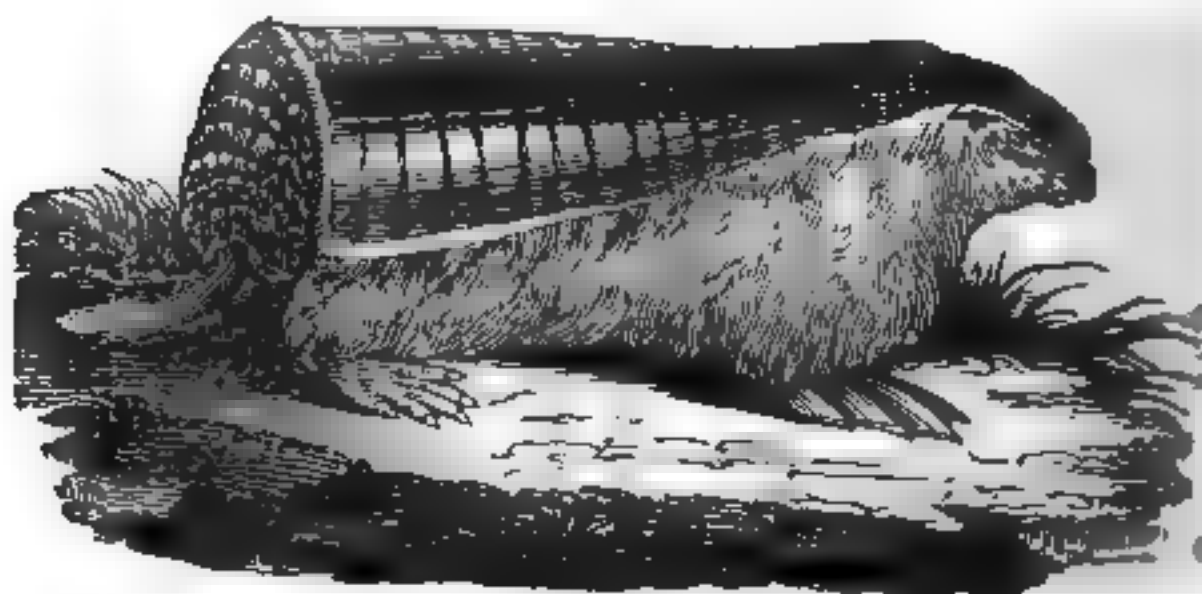
their subterraneous habitations, they contrive to dig one before they are overcome; for the mole is not more expert in digging the ground. They are sometimes caught before they are out of sight, and they make then such a resistance, that the tail is broken without bringing out the body: in order to take them without mutilation, the burrow must be opened, they are then caught without making any resistance: when they find themselves in the hand of their pursuers, they roll themselves up into a ball, and are placed near the fire, to force them to stretch out their coat of mail; which, hard as it is, as soon as it is touched with the finger, the animal receives so quick an impression, that he contracts instantaneously. When they are in deep burrows, the method of forcing them out is to smoke them, or let water run down the hole: the former process, however, is not always successful, as while his pursuer digs, the animal digs also, and so effectually closes up the hole, by throwing up the earth backwards, that the smoke is excluded. Some pretend they remain underground above three months without venturing out; it is true, that they remain in their holes in the day-time, and never go out but in the night to seek for their subsistence. The Armadillo is hunted with small dogs, who soon overtake him; but he stops before they have reached him, and contracts himself: in this condition he is taken and carried off. If he finds himself on the brink of a precipice, he escapes the dogs and the hunters, by rolling himself up, and letting himself fall down like a ball, without injury or prejudice to his scales.

The Armadillo, says Mr. Waterton, is very common in these (the South American) forests; he burrows in the mud hills like a rabbit. As it often takes a considerable time to dig him out of his hole, it would be a long and laborious business to attack each hole indiscriminately,

without knowing whether the animal were there or not. To prevent disappointment, the Indians carefully mine the mouth of the hole, and put a short stick down it. Now if, on introducing the stick, a number of mosquitoes come out, the Indians know to a certainty that the Armadillo is in it; whenever there are no mosquitoes in the hole, there is no Armadillo.

These animals are fat, and very prolific; the female brings forth, as it is reported, four young ones every month, which makes their species very numerous. They are good to eat, and are easily taken with snares laid for them on the banks of the rivers, and in the marshy grounds, which they inhabit in preference. It is pretended, that they are not afraid of the bite of the rattlesnake: it is likewise pretended, that they live in peace with these reptiles, which are often found in their holes. The savages apply their scales to different purposes, and make of them baskets, boxes, and other small vessels light and solid. The Armadillo is only found in South America.

THE CLAMYPHORUS, OR SHIELD-BEARER



Is of the Armadillo kind, and has been discovered only within the two last years. From the tip of the nose to the root of the tail, it measures but five inches and a quarter; its

it at the shoulder is only one inch and three quarters ; the length of its tail is one inch. This is rather less than half the size of the three banded Armadillo. It is a native of South America.

THE PACA, OR SPOTTED CAVY

an animal of the New World, who digs a burrow like a mole, to which he has been compared, though there is not really any likeness between these two animals: he is much larger than the rabbit, and even than the hare ; he has a large head, and the snout short ; he is fat and bulky, and in the form of his body he is more like a pig, as well as by his ungainly gait, waddling, and the manner of eating ; for he does not use, as the rabbit does, his fore feet to carry food to his mouth ; but grubs up the earth like the hog, to find his subsistence. The colour of the back is dark brown, blacker-coloured ; but is lighter on the sides, which are beautifully marked with lines of white spots, running in parallel directions from its throat to its rump ; those on the upper part of the body are perfectly distinct ; the belly is white. Its head is large ; its ears short and naked ; its eyes full, and placed high in its head, near the ears ; it has two strong yellow cutting teeth in each jaw ; its mouth is small ; its upper lip divided ; and it has long whiskers and lips, and on each side of its head, under the ears. Its legs are short, with four toes on the fore, and three on the hind foot ; and it has no tail.

These animals inhabit the banks of rivers, and are found in damp and hot places of South America: the flesh is good to eat, and excessively fat ; their skin also is as that of a pig ; the natives of Brazil consider them to be a great delicacy ; a perpetual war is therefore waged on against these animals. Hunters find it very difficult to take them alive ; and when they are surprised

in their burrows, which have two openings, they defend themselves, and bite with great rage and inveteracy. When pursued, they take to the water, and escape by diving. If attacked by dogs, it defends itself vigorously. Their skin, though covered with short and rough hair, is valuable, because it is spotted on the sides. These animals bring forth young in abundance: men, and animals of prey, destroy a great quantity of them, and yet the species is still numerous. They are peculiar to South America, and are found no where in the Old Continent.

THE OPOSSUM



Is an animal of America, which is easily distinguished from all others by two singular characters: the first is, that the female has under the belly a large cavity, where she receives and suckles her young; the second is, that the male and the female have no claws on the great toe of the hind feet, which are separated from the others, as the thumb in the hand of a man, whilst the other toes are armed with crooked claws, as in the feet of other quadrupeds.

The Opossum is not found in the northern parts of the New World; but he does not constantly dwell in the hottest climates. He is found not only in Brazil, Guiana, and Mexico, but also in Florida, Virginia, and other temperate regions of this continent. It produces often, and a great number of young each time. Most authors say, from a

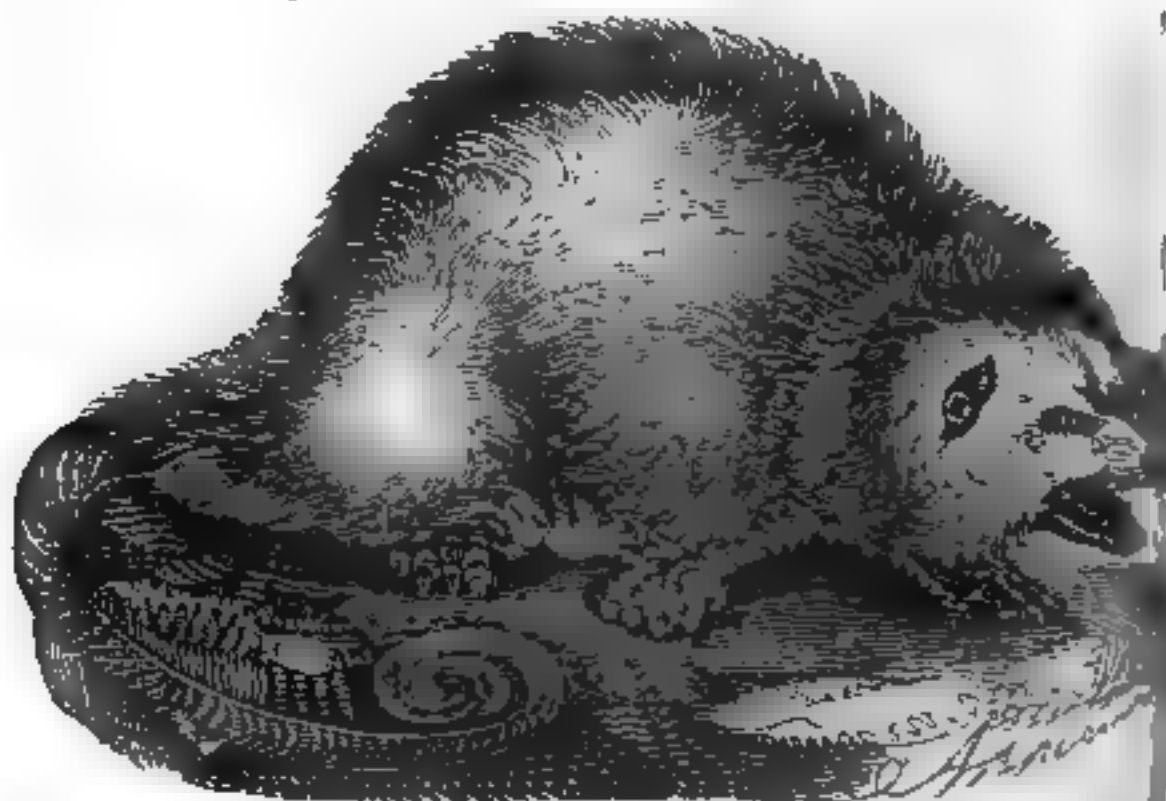
; others six or seven. Marcgrave affirms, that
 en six young living in the bag of the female;
 e about two inches in length, they were very
 ey went in and out of the bag many times in a
 are still smaller when they are just brought
 me travellers say, that they are not larger than
 1 they go out of the uterus into the bag, and
 he paps: this fact is not so much exaggerated
 eople may imagine, for we have seen ourselves
 mal, whose species is like that of the Opos-
 ig ones sticking to the paps not larger than a

ung Opossums stick to the paps of the mother
 ave acquired strength enough, and a sufficient
 move easily. This fact is not doubtful, nor even
 in this species only. Some authors pretend,
 stick to the paps for several weeks; others say,
 remain in the bag, only the first month after
 it of the womb. One may open with facility this
 ve, count, and even feel the young without dis-
 em; they will not leave the pap, which they hold
 mouth, until they are strong enough to walk;
 let themselves fall into the bag, and go out, and
 heir subsistence; they go in again to sleep, to
 d to hide themselves when they are terrified,
 mother flies, and carries in it the young: her
 not seem bigger when she breeds than common,
 time of the true gestation, it is scarcely perceiv-
 she is with young.

ie mere inspection of the form of the feet of this
 is easy to judge that he walks awkwardly, and
 ns: a man can overtake him without hastening

He climbs up trees with great facility, hides
the leaves to catch birds, or hangs himself by

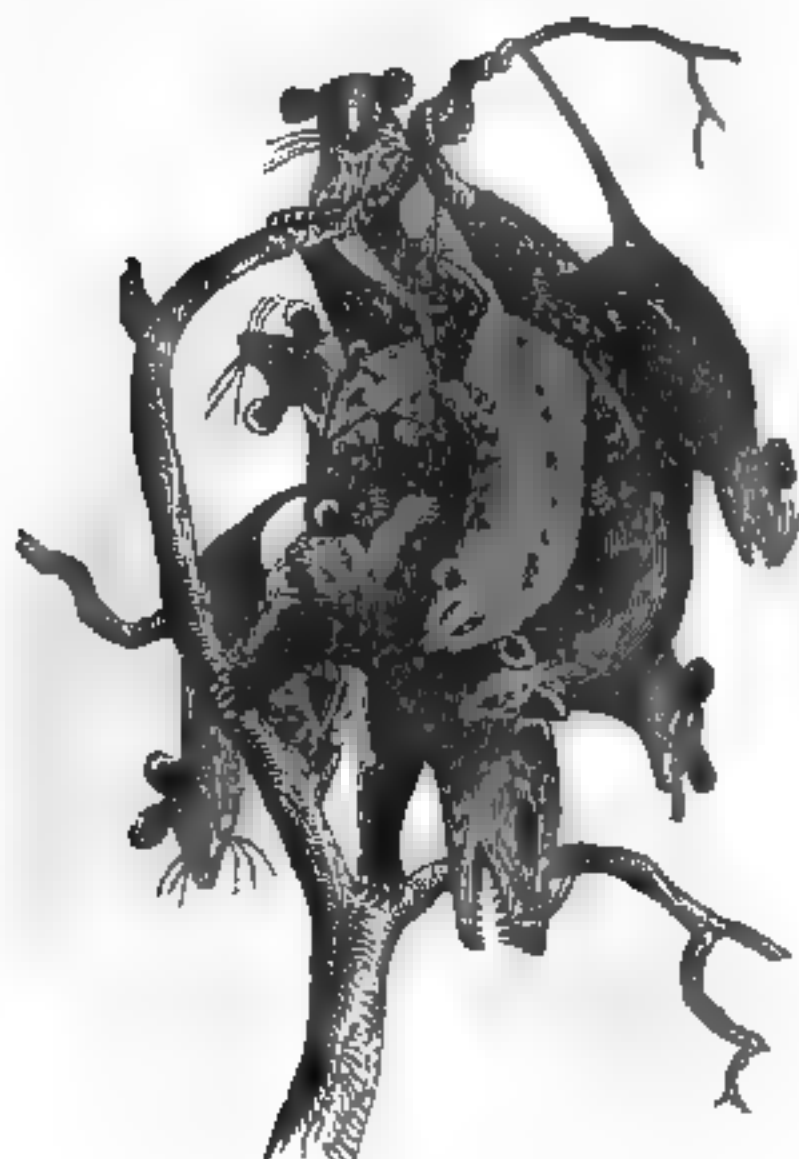
the tail, the extremity of which is muscular, and flexible as the hand, so that he may squeeze, and even incurvate all the bodies he seizes upon: he sometimes remains a long while in this situation, without motion; his body hangs with his head downward, when he silently waits for his prey; at other times, he balances himself to jump from one tree to another like the monkeys with like muscular and flexible tails, which he resembles also in the conformation of the feet. Though he is voracious, and even greedy of blood, which he sucks with avidity, he feeds also upon reptiles, insects, sugarcanes, potatoes, roots, and even leaves and bark of trees. He may be fed as a domestic animal; he is neither wild nor ferocious; he is easily tamed, but he creates disgust by his bad smell, stronger and more offensive than that of the fox; his figure is also forbidding; for, independently of his ears, which resemble those of an owl, of his tail, which resembles that of a ser-



pent, and of his mouth, which is cleft to the very eyes, his body appears always very dirty, because his hair is neither smooth nor curled, but tarnished, as if covered with dust.

bad smell of this animal resides in the skin, for his flesh is eatable. The savages hunt this animal, and feed his flesh heartily. It is so tenacious of life, that, in the Carolina, it has given rise to an adage, that "if a man has nine lives, an Opossum has nineteen."

The latest and fullest account of the manners and habits of the Opossum is given by Dr. Godman. "The Opossum (says he) is very remarkable from other peculiarities, besides those which relate to the continuation of its life. In the first place, it has a very large number of teeth (no less than fifty), and its hind feet are actually rendered hands, by short, fleshy, and opposable thumbs, which, together with the prominences in the palms of these poste-



hands, enable the animal to take firm hold of objects which no one would think could be thus grasped. An

Opossum can cling by these *feet* hands to a smooth silk handkerchief, or a silk dress, with great security, and climb up by the same. In like manner he can ascend by a skein of silk, or even a few threads. The slightest projection, or doubling, of any material, affords him a certain mean of climbing to any desired height. Another curious and amusing peculiarity is his prehensile tail; by simply curving this at the extremity, the Opossum* sustains his weight, and depends from a limb of a tree, or other projecting body, and hanging in full security, gathers fruit, or seizes any prey within his reach; to regain his position on the limb, it is only necessary to make a little stronger effort with the tail, and throw his body upward at the same time.

“In speaking of the more obvious peculiarities of the Opossum, we may advert to the thinness and membranous character of the external ears, which may remind us in some degree of what has been heretofore said relative to the perfection of the sense of touch possessed by the bat, in consequence of the delicacy of the extended integument forming the ears and wings. The extremity of the nose of our animal is also covered by a soft, moist, and delicate integument, which is, no doubt, very sensitive. On the sides of the nose, or rather on the upper lip, there are numerous long and strong divergent whiskers, or bristles, projecting to the distance of nearly three inches; over each eye there are two long black bristles, rather softer than the others, somewhat crisped, or undulated, and slightly decurved; while, on the posterior part of the cheek, and about an inch below and in front of the ear, there is a bunch of long, straight bristles (very similar to those of a hog), six or eight in number, projecting laterally, so as to

* The preceding representation from Godman, was drawn from stuffed specimens to be seen in Mr. Peale's museum in New York.

n a right angle with the head. When the elongated ovoid form of the Opossum's head is recollected, together with its nocturnal habits, we cannot avoid remarking, that all these arrangements appear to have immediate reference to the safety of the animal, furnishing the means of directing its course, and warning it of the presence of enemies which otherwise might not be discovered until too late.

The mouth of the Opossum is very wide when open, and the animal does not drink by lapping, but by suction. The wideness of the mouth is rendered very remarkable when the female is approached, while in company with her young. She then silently drops the lower jaw to the greatest distance it is capable of moving, retracts the angles of the lips, and shows the whole of her teeth, which thus present a formidable array. She then utters a muttering kind of snarl, but does not snap, until the hand, or other object, be brought very close. If this be a stick, or other hard or insensible body, she seldom closes her mouth on it after the first or second time, but maintains the same opening and snarling appearance, even when it is thrust into her mouth. At the same time, the young, if they have attained any size, either exhibit their signs of defiance, or take refuge in the pouch of the mother, or, clinging to various parts of her body, hide their faces amidst her long fur.

The general colour of the Opossum is a whitish gray. On the top of the head along the back and upper part of the sides, the gray is darkest, and this colour is produced by the intermixture of coarse white hairs, upwards of three inches long, with a shorter, closer, and softer hair, which is white at base, and black for about half an inch at tip. The whole pelage (fur) is of a woolly softness, and the long white hairs diverging considerably, allow the back

parts to be seen, so as to give the general gray colour already mentioned. On the face the wool is short, and of a smoky white colour; that on the belly is of the same character, but is longer on the fore and hind legs; the colour is nearly black from the body to the digits, which are naked beneath. The tail is thick and black, for upwards of three inches at base, and is covered by small hexagonal scales, having short rigid hairs interspersed throughout its length, which are but slightly perceptible at a little distance. The Opossum is generally killed for the sake of its flesh and fat. Its wool is of considerable length and fineness during the winter season, and we should suppose, that in manufactures it would be equal to the sheep's wool which is wrought into coarse hats.

“The Opossum is a nocturnal and timid animal, depending for his safety more on cunning than strength. His motions are slow, and his walk, when on the ground, entirely plantigrade, which gives an appearance of clumsiness to his movements. When on the branches of trees, he moves with much greater ease, and with perfect security from sudden gusts of wind; even were his weight sufficient to break the limb on which he rests, there is no danger of his falling to the earth, unless when on the lowest branch, as he can certainly catch, and securely cling, to the smallest intervening twigs, either with the hands or the extremity of the tail. This organ is always employed by the animal while on the smaller branches of trees, as if to guard against such an occurrence, and it is very useful in aiding the Opossum to collect his food, by enabling him to suspend himself from a branch above, while rifling a bird's nest of its eggs, or gathering fruits.

“The food of the Opossum varies very much, according to circumstances. It preys upon birds, various small quadrupeds, eggs, and, no doubt, occasionally upon insects.

poultry yards are sometimes visited, and much havoc committed by the Opossum, as, like the weasel, this animal is fond of cutting the throats and sucking the blood of a number of individuals, than of satisfying his hunger by eating the flesh of one. Among the wild fruits, the persimmon (*Diospyros Virginiana*) is a great favourite, and it is usually after this fruit is in perfection that the Opossum is killed by the country people for the market. At that season it is very fat, and but little difference is to be perceived between this fat and that of a young pig. The flavour of the flesh is compared to that of a roasted pig; we have in several instances seen it refused by dogs and cats, though the Opossum was in fine order, and but recently killed. This may have been owing to some accidental circumstance, but it was uniformly rejected by these animals, usually not very nice when raw flesh is offered.

The hunting of the Opossum is a favourite sport with country people, who frequently go out with their dogs at night, after the autumnal frosts have begun, and the common fruit is in its most delicious state. The Opossum, as soon as he discovers the approach of his enemies, crouches perfectly close to the branch, or places himself snugly in the angle where two limbs separate from each other.

The dogs, however, soon announce the fact of his presence, by their baying, and the hunter, ascending the tree, seizes the branch upon which the animal is seated, and endeavours to shake it with great violence, to alarm, and cause him to relax his hold. This is soon effected, and the Opossum, attempting to escape to another limb, is pursued immediately, and the shaking is renewed with greater violence, until at length the terrified quadruped allows himself to drop to the ground, where hunters, or dogs, are ready to dispatch him.

Should the hunter, as frequently happens, be unac-

accompanied by dogs when the Opossum falls to the ground it does not immediately make its escape, but steals softly and quietly to a little distance, and then gathering into as small a compass as possible, remains as still as dead. Should there be any quantity of grass or undergrowth near the tree, this apparently simple artifice is frequently sufficient to secure the animal's escape, as it is difficult in moonlight, or in the shadow of the tree, to distinguish and if the hunter has not carefully observed the spot where it fell, his labour is often in vain. This circumstance, however, is generally attended to, and the Opossum derives but little benefit from his instinctive artifice.

"After remaining in this apparently lifeless condition for a considerable time, or so long as any noise indicative of danger can be heard, the Opossum slowly unfolds itself, and creeping as closely as possible upon the ground would fain sneak off unperceived. Upon a shout, or cry, in any tone, from his persecutor, he immediately assumes his deathlike attitude and stillness. If then approached, moved, or handled, he is still seemingly dead, might deceive any one not accustomed to his actions. This feigning is repeated as frequently as opportunity allowed him of attempting to escape, and is known so well to the country folks, as to have long since passed into a proverb: "He is playing *possum*," is applied with readiness by them to any one who is thought to act deceptively, or wishes to appear what he is not.

"The usual haunts of the Opossum are thick forests and their dens are generally in hollows of decayed trees where they pass the day asleep, and sally forth, in the evening or after nightfall, to seek food. They are occasionally out during daylight, especially when they have young of considerable size, too large to be carried in the maternal pouch. The female then offers a very singular appearance.

ce, as she toils along with twelve or sixteen cubs, near-of the size of rats, each with a turn of his tail around a root of the mother's, and clinging on her back and sides with paws, hands, and mouth. This circumstance was thought distinctive of another species, hence called *dorsivora*, but is equally true of the common or Virginian Opossum. It is exceedingly curious and interesting to see the young, when the mother is at rest, take refuge in the pouch, hence one or two of them may be seen peeping out, with an air of great comfort and satisfaction. The mother in this condition, or at any time in defence of her young, will make battle, biting with much keenness and severity, for which her long canine teeth are well suited.

"If taken young, the Opossum is generally tamed, and becomes very fond of human society, in a great degree relinquishes its nocturnal habits, and grows troublesome from its familiarity. We have had one thus tamed, which would follow the inmates of the house with great assiduity, and complain with a whining noise when left alone. As it grew older it became mischievous, from its restless curiosity, and there seemed to be no possibility of devising any contrivance effectually to secure it. The same circumstance is frequently remarked by persons who have attempted to detain them in captivity; and of the instances which have come to our knowledge, where even a great number were apparently well secured, they have all in a short time enlarged themselves, and been no more heard of. In some such instances these animals have escaped from the city, and for a long time have taken up their quarters in cellars, where their presence has never been suspected, as during the day they remained concealed. In this way it is very probable that many are still living in the city of Philadelphia, obtaining a plentiful food by their nightly labours."

THE MARMOSE, OR MURINE OPOSSUM,

RESEMBLES in most respects the latter species; they are natives of the same climate, in the same continent, and are very much alike by the form of the body, the conformation of the feet, and the tail, a part of which is covered with scales, the upper part only being hairy. But the Marmose is smaller than the common Opossum, his snout is still sharper; the female has no bag under the belly, she has only two loose skins near the thighs, between which the young place themselves to stick to the paps. When the young are brought forth, they are not so large as small beans; they then stick to the paps. The brood of the Marmose is very numerous; we have seen ten small Marmoses, each sticking to a pap, and the mother had still four more paps. It is probable that these animals bring forth a few days after the conception. The young are then fetuses only, which are not come to the fourth part of their growth.

THE CAYOPOLLIN, OR MEXICAN OPOSSUM,



SAYS Fernandez, is a small animal, a little larger than a rat, very much resembling the opossum in the snout, the ears, and the tail, which is thicker and stronger than that of a rat; he makes use of it as we do our hands; he has thin transparent ears; the belly, the legs, and feet white. The young, when they are frightened, embrace the mother, who lifts them up on the trees. This species has been found on the mountains of New Spain.

THE FLYING OPOSSUM.

THIS animal is found in New South Wales: its head is like a squirrel's, with ears large and erect, but the fur is more delicate, and of a beautiful dark glossy colour, mixed with gray, the under parts white; on each hip is a tan coloured spot. The sailing membrane resembles the flying squirrel's, but is broader in proportion; on the fore legs has five toes, with a claw on each; on the hind ones, four toes, and a long thumb, which enables the animal to use it as a hand; it is remarkable, that the three out claws of the hind feet are not separated like the others.

CHAP. XVI.

Of the Elephant...The Rhinoceros...The Camel and Dromedary...The Buffalo, the Urus, the Bison, the Musk Ox, the Arnee, and the Zebu.

THE ELEPHANT.

THE human race excepted, the Elephant is the most respectable of animals. In size he surpasses all other terrestrial creatures, and in understanding he is inferior only to man. Of all the brute creation, the Elephant, the dog, the beaver, and the beaver, are most admirable for their sagacity; but the genius of the dog is only borrowed, being instructed by man in almost every thing he knows; the monkey has only the appearance of wisdom, and the beaver is only sensible with regard to himself, and those of his species. The Elephant is superior to them all three; he unites all the most eminent qualities. The hand is the principal part of the monkey's dexterity; the Elephant with his trunk, which serves him instead of arms and hands, with

which he can lift up, and seize the smallest, as well largest objects, carry them to his mouth, place them back, hold them, or throw them far off, has the same dexterity as the monkey, and at the same time the tenderness of the dog; he is like him susceptible of great affection, capable of a strong attachment; he uses himself to labour without reluctance, and submits to him, not so much by force, as by good treatment; he serves him with intelligence, and fidelity; in fine, the Elephant, like the beaver, loves the society of his equals, and makes himself understood by them. They are often seen to assemble together, disperse, act in concert, and if they do not erect high towers, and do not work in common, it is, perhaps, for their room only, and tranquillity; for men have very much multiplied in all the regions inhabited by the Elephant, he consequently lives in fear and anxiety, and is not a peaceful possessor of a space large and secure; he is obliged to establish his habitation on a settled spot. Ever



in nature has his real price, and relative value of both in the Elephant, we must allow him the judgment of the beaver, the dexterity of the monkey, the tenderness of the dog, and to add to these qual-

ular advantages of strength, size, and longevity. We
 st not forget his arms, or his defence, with which he
 a pierce through, and conquer the lion. We must ob-
 ve, that he shakes the ground at every step ; that with
 trunk he roots up trees ; that with the strength of his
 y he makes a breach in a wall ; that being terrible by
 force, he is invincible by the resistance only of his
 rmous mass, and by the thickness of the leather which
 vers it ; that he can carry on his back a tower armed in
 t, with a number of men ; that he alone moves machines,
 e carries burthens, which six horses cannot move. To
 prodigious strength he joins courage, prudence, cool-
 t, and an exact obedience : he preserves moderation
 in his most violent passion ; he is more constant than
 etuous in love ; in anger he does not forget his friends ;
 ever attacks any but those who have given him offence ;
 remembers favours as long as injuries : having no taste
 flesh, and feeding chiefly upon vegetables, he is not
 rally an enemy to other animals ; he is beloved by
 n all, since all of them respect him, and have no cause
 ear him. For these reasons, men have had at all times
 eneration for this great, this first of animals. The an-
 ts considered the elephant as a prodigy, a miracle of
 re ; they have much exaggerated his natural faculties ;
 y attribute to him, without hesitation, not only intellec-
 qualities, but moral virtues.

a wild state, the Elephant is neither bloody nor fero-
 us ; his manners are social ; he seldom wanders alone ;
 ommonly walks in company, the oldest leads the herd,
 next in age drives them, and forms the rear ; the
 hg and the weak are in the middle. The females car-
 their young, and hold them close with their trunks.
 y only observe this order, however, in perilous march-
 when they *go to feed on cultivated lands* ; they walk or

travel with less precaution in forests and solitary but still keeping at such a moderate distance from each other, as to be able to give mutual assistance, and able warnings of danger. Some, however, straggle remain behind the others; none but these are attack hunters, for a small army would be requisite to a whole herd, and they could not conquer without loss of men; it is even dangerous to do them the injury; they go straight to the offender, and, notwithstanding the weight of their body, they walk so fast that they easily overtake the lightest man in running; they pierce through with their tusks, or seize him with their trunk, throw him against a stone, and tread him under their feet but it is only when they have been provoked, that they come so furious and so implacable. It is said, that they have been once attacked by men, or have fallen into a snare, they never forget it, and seek for revenge on all occasions. As they have an exquisite sense of smell, perhaps more perfect than any other animal, and the large extent of their nose, they smell a man at a distance, and could easily follow him by the track. These animals are fond of the banks of rivers, deep valley places, and marshy grounds; they cannot subsist while without water, and they make it thick and muddy before they drink; they often fill their trunks with water to convey it to their mouth, or only to cool their trunk and to amuse themselves in sprinkling it around them; they cannot support cold, and suffer equally from excessive heat, for, to avoid the burning rays of the sun, they penetrate into the thickest forests; they also bathe in the water; the enormous size of their body is rather an advantage to them in swimming, and they do not sink deep in the water as other animals; besides, the length of their trunk, which they erect, and through which they breathe, takes from them all fear of being drowned.

their common food is roots, herbs, leaves, and young trees; they also eat fruit and corn, but they have a distaste for flesh and fish. When one of them finds abundant food, he calls the others, and invites them to come and feed with him. As they want a great quantity of fodder, they often change their place, and when they find cultivated lands, they make a prodigious waste; their bodies being of an enormous weight, they destroy ten times more ground with their feet, than they consume for their food, which may be reckoned at the rate of one hundred and fifty pounds of grass daily. As they never feed but in great numbers, they waste a large territory in about an hour's time; for this reason, the Indians and the Negroes take pains to prevent their visits, and to drive them away, by making a great noise, and great fires; notwithstanding these precautions, however, the Elephants often take possession of them, drive away the cattle and men, and sometimes pull down their cottages. It is difficult to frighten them, as they are little susceptible of fear; nothing can alarm them but fireworks, and crackers thrown amongst them, the sudden effect of which, often repeated, forces them sometimes to turn back. It is very difficult to part them, they commonly attack their enemies all together, prove unconcerned, or turn back.

A female Elephant goes two years with young; when in that condition the male never conjoins with her. She only brings forth a young one, which has teeth as soon as he is brought forth; he is then larger than a boar; yet his tusks are not visible, they appear soon after, and at six months old are some inches in length; at that age, the calf is larger than an ox, and the tusks continue to grow till he is advanced in years.

It is very easy to tame the Elephant. As he is the gentlest and most rational of animals, he is more service-

able than any of them ; but he was formerly supposed to feel his servile condition, and never to couple in a domestic state. This, however, has been found to be an erroneous opinion.

There is, therefore, no domestic Elephant but has been wild before ; and the manner of taking, taming, and bringing them into submission, deserves particular attention. In the middle of forests, and in the vicinity of the place which they frequent, a large space is chosen, and encircled with palisadoes ; the strongest trees of the forest serve instead of stakes, to which cross pieces of timber are fastened, which support the other stakes ; a man may easily pass through this palisado ; there is another great opening, through which the Elephant may go in, with a trap hanging over it, or a gate which is shut behind him ; to bring him to that enclosure, he must be enticed by a tame female, ready to take the male ; and when her leader thinks she is near enough to be heard, he obliges her to indicate by her cries the condition she is in ; the wild male answers immediately, and begins his march to join her ; she repeats her call now and then, and arrives first to the first enclosure, where the male, following her track, enters through the same gate. As soon as he perceives himself shut up, his ardour vanishes, and when he discovers the hunters, he becomes furious ; they throw at him ropes with a running knot to stop him ; they fetter his legs and his trunk, they bring two or three tame Elephants led by dexterous men, and try to tie them with the wild Elephant, and at last, by dint of dexterity, strength, terror, and caresses, they succeed in taming him in a few days.

The Elephant, once tamed, becomes the most tractable and the most submissive of all animals : he conceives a great affection for his leader, he caresses him, and seems to guess whatever can please him ; in a little time he is

ands the signs, and even the expression of sounds ; distinguishes the tone of command, that of anger or nature, and acts accordingly : he never mistakes the of his master ; he receives his orders with attention ; executes them with prudence and eagerness, without hesitation ; for his motions are always measured, and his character seems to participate of the gravity of his ; he is easily taught to bend the knee to assist who will ride on his back ; he caresses his friends with his trunk, and salutes with it the persons he is directed to take notice of : he makes use of it to lift burdens and helps to load himself ; he has no aversion to being clothed, and seems to delight in a golden harness or magnificent trappings ; he is easily put to the traffic of carts, and draws ships upon occasion ; he draws a yoke, without stopping, or any marks of dislike, provided he is not insulted by unseasonable correction, and provides his driver seems to be thankful for the spontaneous exertion of his strength. His leader is mounted on his back and makes use of an iron rod crooked at the end, which he strikes him gently on the head to make him go faster or increase his pace ; but often a word is sufficient, especially if he has had time to make himself well acquainted with his leader, and has a confidence in him ; his attachment is sometimes so strong and so lasting, and his affection so great, that commonly he refuses to serve under any other person, and he is known to have died of grief for his master ; in anger killed his governor.

This species of the Elephant is numerous, though they breed forth but one young once in two or three years ; the longer the life of animals is, the more they multiply : in the elephant, the length of his life compensates the smallness ; and if it is true, as has been affirmed, that he lives two hundred years, and that he begets when he is one

hundred and twenty years old, each couple bring forty young in that space of time: besides, having no fear from other animals, and little even from men, to take them with great difficulty, the species has increased, and is generally dispersed in all the southern parts of Africa and Asia.

From time immemorial the Indians made use of Elephants in war. Amongst those nations unacquainted with the European military discipline, they were the basis of their armies; and as long as battles were decided by mere weapons, they commonly vanquished: yet in history, that the Greeks and Romans used them so soon to those monsters of war; they opened their ranks to let them go through; they did not attempt to wound them, but threw all their darts against their leaders, who were forced to surrender, and to calm the Elephants who were separated from their troops; and now that fire is become an element of war, and the principal instrument of destruction, Elephants, who are afraid of the noise and the fire of artillery, would be rather an incumbrance in battle than more dangerous than useful.

In those regions, however, where our cannons and other modern arts are yet scarcely known, they fight still with Elephants. At Cochin, and in parts of Malabar, they do not make use of horses, and all those who do not fight on foot are mounted upon Elephants. In Tonquin, Siam, Pegu, the king, and all the grandees, never ride but upon Elephants: on festival days they are preceded and followed by a great number of these animals richly caparisoned and covered with the richest stuffs. On comparisons of travellers and historians, it appears that Elephants are more numerous in Africa than in Asia; and there are also less mistrustful, not so wild, and, as I have known the unskilfulness and the little power of the

whom they have to deal in this part of the world, every day without fear to their habitations.

The following extracts are furnished by Major Denham. While I was thus employed, Maramy came galloping saying that he had found three very large Elephants, going to the south-east close to the water; when he was within a few hundred yards of them, all the persons present, and my servant on a mule, were ordered to halt, and four of us, who were mounted, rode up to these stupendous animals.

The Shiekh's people began screeching violently; and though, at first, the Elephants appeared to treat our approach with contempt, yet they soon moved off, erecting their ears, and giving a roar that shook the ground under us. The largest was an immense fellow, I should suppose sixteen feet high; the other two were females, and moved away rather shyly, while the male kept in the rear, as if to guard their retreat. We wheeled swiftly round him; and Maramy cast his spear at him, which struck him just under the tail, and seemed to give him about as much pain as when we prick our finger with a pin; the huge beast threw up his trunk in the air with a loud roar, and from it cast such a volume of sand, that, unprepared as I was for such an attack, nearly blinded me. The Elephant will sometimes trample upon a man and horse, and after choking them with its trunk will destroy them in an instant.

As we had cut him off from following his companions, we took the direction leading to where we had left the women and the footmen; they quickly fled in all directions, and my man Columbus was so alarmed, that he did not do the better of it for the whole day. We pressed the Elephant now very close, riding before, behind, and on either side of him; and his look sometimes, as he turned his head, had the effect of instantly checking the speed of my

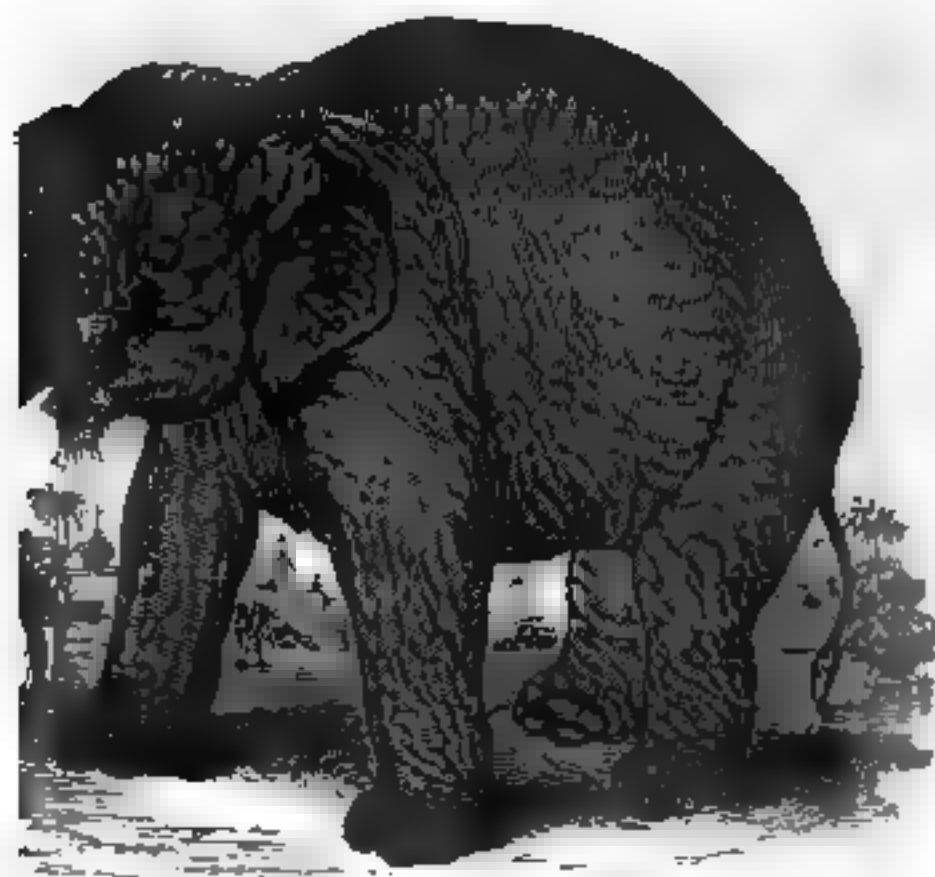
horse; his pace never exceeded a clumsy rolling walk, but was sufficient to keep our horses in a short gallop. I gave him a ball from each barrel of my gun, at about fifty yards distance; but the first which struck him on the body, failed in making the least impression. After giving him another spear, which flew off his tough hide without exciting the least sensation, we left him to his fate.

“News was soon brought us that eight Elephants were at no great distance, and coming towards us; it was thought prudent to chase them away, and we all mounted for that purpose. They appeared unwilling to go, and did not even turn their backs till we were quite close, and had thrown several spears at them; the flashes from the pan of the gun however seemed to alarm them more than any thing; they retreated very majestically, first throwing out as before a quantity of sand. A number of the birds here called *tuda*, were perched upon the backs of the Elephants; these resemble a thrush in shape and note, and were represented to me, as being extremely useful to the Elephant in picking off the vermin from those parts which it is not in his power to reach.”

THE ASIATIC ELEPHANT.

In general, the Elephants of Asia are of a larger size, and superior in strength to those of Africa; in particular, those of Ceylon, who exceed in courage and sagacity all those of Asia: probably they owe these qualifications to their education, more improved in Ceylon than any where else. They differ also in other particulars, so as to constitute them a different species. “His head (says Mr. Bennett) is more oblong, and his forehead presents in the centre a deep concavity between two lateral and rounded elevations; that of the African being round and convex in *its* parts. The teeth of the former are composed of trans-

tical laminae of equal breadth, while those of the m rhomboidal or lozenge-shaped divisions. The



e Asiatic are also smaller, and descend no lower neck, and he exhibits four distinct toes on his : the African, on the contrary, is furnished with uch greater size, descending to his legs, and no a three toes are visible on his posterior extremi- ne individual which is the subject of the wood ieved to be little more than three years old.

lephants of the Indies easily carry burdens of our thousand weight; the smallest, that is, those , lift up freely with their trunks burdens of two pounds weight, and place them on their shoul- y take in this trunk a great quantity of water, y throw out around them at seven or eight feet they can carry burdens of more than a thousand on their tusks; with their trunk they break bran-

ches of trees, and with their tusks they root out the trees. One may judge of their strength by their agility, considering at the same time the bulk of their body; they walk as fast as a small horse on the trot, and when they run, they can keep up with a horse on full gallop, which seldom happens in their wild state, except when they are provoked by anger, or frightened. The tame Elephants travel easily, and without fatigue, fifteen or twenty leagues a day; and when they are hurried, they may travel thirty-five or forty leagues. They are heard at a great distance, and may be followed very near on the track, for the traces which they leave on the ground are not equivocal; and on the ground where the steps of their feet are marked they are fifteen or eighteen inches in diameter.

When the Elephant is taken care of, he lives a long while even in captivity. Some authors have written, that he lives four or five hundred years; others, two or three hundred; and the most credible, one hundred and twenty, thirty, and even one hundred and fifty years. Whatever care, however, is taken of the Elephant, he does not live long in temperate countries, and still less in cold climates. The Elephant which the king of Portugal sent to Louis XIV. in 1668, and which was then but four years old, died in his seventeenth, in January, 1681, and lived only thirteen years in the menagerie of Versailles, where he was treated with care and tenderness, and fed with profusion: he had every day four pounds of bread, twelve pints of wine, two buckets of porridge, with four or five pounds of bread, two buckets of rice boiled in water, without reckoning what was given to him by visitors: he had; besides every day one sheaf of corn to amuse himself; for, after he had eaten the corn ears, he made a kind of whip of straw, and used it to drive away the flies; he delighted in breaking the straw in small bits, which he did with great

erity with his trunk ; and, as he was led to walk daily, lucked the grass and eat it.

he common colour of the Elephant is ash-gray, or xish. The white are extremely scarce ; some have seen at different times in the Indies, where also some found of a reddish colour.

he Elephant has very small eyes, comparatively with enormous size, but they are sensible and lively ; and t distinguishes them from all other animals, is their etic, sentimental expression. He seems to reflect, to k, and to deliberate ; and never acts till he has ex- ned and observed several times, without passion or pre- tation, the signs which he is to obey. Dogs, the eyes which have much expression, are animals too lively to nguish their successive sensations ; but as the Ele- nt is naturally grave and sedate, one may read in his s the order and outward appearance of his interior ctions.

le has a quick hearing, and this organ is outwardly like of smelling, more marked in the Elephant than in any r animal ; his ears are very large, even in proportion is body ; they are flat, and close to the head, like those . man ; they commonly hang down, but he raises them and moves them with great facility ; he makes use of n to wipe his eyes, and to cover them against the in- veniency of dust and flies. He delights in the sound nstruments, and seems to like music : he soon learns eat time, and to move accordingly : he seems animated he beat of the drum and the sound of trumpets : as an exquisite smell, and is passionately fond of per- es of all sorts, and of fragrant flowers ; he selects them after another, and makes nosegays, which he smells eagerness, and then carries them to his mouth as if ntended to taste *them*.

his sense of feeling centres in his trunk ; but it is delicate and as distinct in that sort of hand as in the human : this trunk, composed of membranes, nerves, and muscles, is, at the same time, a member capable of motion, and an organ of sense ; the animal can not move and bend it, but he can shorten, lengthen, and turn it all ways. The extremity of this trunk terminates in an edge, which projects above like a finger : it is this sort of finger that the Elephant does whatever we do with ours ; he picks up from the ground the smallest piece of money ; he gathers nuts and flowers, choosing one after another ; he unties knots, opens and shuts doors, turning the keys, and bolts them ; he learns to draw regular characters with an instrument as small as a pen.

Although the Elephant has a more retentive memory and more intelligence than any other animal, he has a brain smaller than most of them : he is, at the same time, a miracle of intelligence and a monster of matter ; his body is very thick, without any suppleness ; the neck is short and very stiff ; the head small and deformed ; the trunk of an excessive diameter ; and the nose is of a still more disproportionate length ; the eyes are too small, as the mouth ; his legs are like massive pillars, and stiff ; the feet so short and so small, that he has no claws ; the skin is hard, thick, and callous. The deformities are remarkable, as all of them are excessive in size ; and they are more disagreeable to the eye than most of these deformities have no other explanation ; no other animal having either the height, the nose, the ears, or the tusks, made or placed as in the Elephant.

The Elephant is yet singular in the conformation of his feet and the texture of the skin. He is no

other quadrupeds ; his skin is bare ; some bristles
 at of the chops ; they are very thin on the body,
 thicker on the eyelids, on the back part of the
 within the ears, the thighs, and the legs. The epi-
 dermis, or outside skin, hard and callous, has two sorts of
 pores, some hollow, others prominent. In man, and
 animals, the epidermis sticks every where close to
 the skin. In the Elephant, it is only fastened by some
 like two quilted stuffs one above the other. This
 skin is naturally dry, and soon acquires three or four
 times thickness, by the crusts which are generated one
 after the other drying up. It is this thickness of the epi-
 dermis which produces the *elephantiasis*, or dry leprosy,
 which man, whose skin is bare, like that of the Ele-
 phant, is sometimes subject. This distemper is very com-
 mon to Elephants ; and, to prevent it, the Indians take
 care to rub them often with oil, and to preserve the skin
 soft by frequent bathing. It is rather tender where it
 is not callous ; and the Elephant is so fearful of the sting
 of flies, that he not only employs his natural motions,
 but the resources of his intelligence, to get rid of
 them ; he makes use of his tail, of his ears, of his trunk,
 to shake them ; he contracts his skin wherever he can,
 and squeezes them to death betwixt his wrinkles. He
 cleans his skin by rubbing it with pumice stones, and af-
 terwards pours on it perfumed oil and colours. The con-
 dition of the feet and legs is also singular, and dif-
 ferent in the Elephant from that of other animals ; the
 fore legs seem to be higher than those behind, yet the
 fore legs are the longest ; they are not bent like the hind
 legs of a horse or an ox, the thighs of which seem to be
 the same piece with the buttocks ; their knee is very
 high on the belly, and the foot so high and so long, that it
 makes up to make a great part of the leg. In the Elephant,

on the contrary, this part is very short, and touches the ground; he has the knee, like man, in the middle of the leg, not near the belly. This foot, so short and so small, is divided into five toes, which are all covered with a skin, none appearing outwardly; one sees only a sort of claws, the number of which varies, though that of the toes is constant; for he has always five to each foot, and commonly also five claws; but sometimes he has no more than four, or even three; and, in this case, they do not correspond exactly with the extremity of the fingers.

The ears of the Elephant are very long; his tail is not longer than the ear; it is commonly near three feet in length; it is rather thin, sharp, and garnished at the extremity with a tuft of large, black, shining, and solid bristles, which are as large and as strong as wire; and a man cannot break them with his hands, as they are elastic and pliant. This tuft of hair is an ornament which the Negro women are particularly fond of; and they attribute to it some particular virtue, according to their superstitious notions; an Elephant's tail is sometimes sold for two or three slaves; and the Negroes often hazard their lives to cut and snatch it from the living animal.

The largest Elephants of the Indies, and the eastern coasts of Africa, are fourteen feet high; the smallest, which are found in Senegal, and in the other western parts of Africa, are not above ten or eleven feet; and those which have been brought young into Europe, were not so high. That at the menagerie at Versailles, which came from Congo, was but seven feet and a half high in his seventeenth year. During thirteen years that he lived in France, he did not grow above a foot; so that at the age of four, when he was sent, he was only six feet and a half high.

In order to give a complete idea of the nature and intel-

gence of this singular animal, we shall insert here some particulars communicated by the Marquis of Montmirail. The Indians make use of the Elephant to carry artillery over mountains; and it is then that he gives the greatest proofs of his intelligence. He acts in the following manner:—When the oxen, yoked two and two, endeavour to draw up the mountain the piece of artillery, the Elephant pushes the breech of the gun with his forehead; and at every effort that he makes, he supports the carriage with his knee, which he places near the wheel; and it seems as if he understands what is said to him. When his leader employs him in some hard labour, he explains what is his work, and the reasons which ought to engage him to obey. If the Elephant shows an aversion to comply, the *cornac* (so his leader is called) promises to give him arrack, or something he likes; then the animal agrees to every thing proposed; but it is dangerous to forfeit his word; more than one *cornac* has been the victim of his deception. An instance of this happened in the Deccan, which deserves to be recorded; and, however incredible it may appear, it is exactly true. An Elephant had been revenged of his *cornac* by killing him. His wife, witness of this catastrophe, took her two children and threw them to the feet of the animal, still furious; telling him, *Since thou hast killed my husband, take also my life, and that of my children.* The Elephant stopped short, grew calm, and, as if he had been moved with regret and compassion, took with his trunk the largest of the two children, placed it on his neck, adopted him for his *cornac*, and would have no other leader.

If the Elephant is vindictive, he is no less grateful. A soldier of Pondicherry, who commonly carried to one of these animals a certain measure of arrack every time that he received his pay, having one day drank more than com-

mon, and seeing himself pursued by the guard, who threatened to conduct him to prison, took refuge under the Elephant, and slept there. It was in vain that the guard attempted to draw him out from this asylum; the Elephant defended him with his trunk. The next day the soldier, become sober, was struck with terror to lie under an animal of this enormous bulk. The Elephant, who, no doubt, perceived his consternation, caressed him with his trunk, to remove his fears, and made him understand that he might depart freely.

The Elephant falls sometimes into a sort of a frenzy, which deprives him of his tractableness, and makes him extremely formidable. This commonly happens in the Spring season. He is commonly killed on the first symptoms of madness, for fear of mischief. Sometimes he is tied with heavy chains, in hopes that he will come to himself; but when he is in his natural state, the most acute pains cannot engage him to do any harm to persons who have not offended him. An Elephant, furious with the wounds which he had received in battle at Hambour, ran through the fields, and cried out in the most hideous manner. A soldier, who, notwithstanding the warning of his companions, could not fly, perhaps, because he was wounded, remained in his way; the Elephant was afraid to trample him under his feet, took him with his trunk, placed him gently on one side of the road, and continued his march. The gentlemen of the Academy of Sciences have also communicated to us some facts which they have learned from those who governed the Elephant at the menagerie of Versailles; and these facts seem to deserve a place.

“The Elephant seemed to discern when any person made a fool of him; and he remembered the affront to be revenged of it the first opportunity. Having been balked

an, who feigned to throw something into his mouth, took him with his trunk, and broke two of his ribs ; afterwards he trampled him under his feet, and broke one leg ; and having kneeled down, he tried to thrust his trunk into the man's belly, which, however, went into the ground on both sides of the thigh, which was not noticed. He bruised another man, by squeezing him against the wall, for a similar mockery. A painter was ordered to draw him in an extraordinary attitude, which was to keep his trunk erect, and the mouth open. The intention of the painter, to make him remain in that attitude, was frustrated by the elephant putting his trunk into his mouth ; but afterwards he deceived him, and provoked his indignation ; and, as if he had known the cause of this deception was the painter's desire to keep him drawn, he was revenged on his master, by spilling with his trunk a great quantity of water, which was the paper intended for his design."

He made less use of his strength than of his dexterity, and was such, that he untied, with great facility, a double string which fastened his leg, with his mouth untying it from the buckle's tongue, and after this buckle had a string twisted around it, with divers knots, he untied it all, without breaking any thing. One night, that he was disentangled himself from his leather strings, he opened, so dexterously, the door of his lodge, that his keeper was not waked by the noise. He went thence through several yards of the menagerie, breaking open doors where they were shut, and pulling down the stone work, when the passage was too narrow for him ; and thus he went to the lodges of other animals, terrifying them to such a degree, that they ran away to hide themselves in the most remote part of the park. In fine, to omit nothing of what contributed to make all the natural faculties of this animal perfectly known, as well as his acquired knowledge,

we shall add some facts, extracted from the most credible authors.

Of five Elephants (says Tavernier), which hunters had taken, three escaped, although their bodies and their legs were fastened with chains and ropes. These men told us a very surprising circumstance, if we can believe it, which is, that when once these Elephants have been caught, and eluded the snares of their adversaries, if they are compelled to go into the woods, they are mistrustful, and break with their trunk a large branch, with which they sound the ground before they put their foot upon it, to discover if there are any holes on their passage, not to be caught a second time; which made the hunters, who related this singularity, despair of catching again the three Elephants who had escaped. We saw the other two which they had caught; each of them was betwixt two tame Elephants; and around the wild Elephants were six men, holding spears. They spoke to these animals in presenting them something to eat, and telling them, in their language, *Take this and eat it.* They had small bundles of hay, bits of black sugar, or rice boiled in water, with pepper. When the wild Elephant refused to do what he was ordered, the men commanded the tame Elephants to beat him, which they did immediately; one striking his forehead with his; and when he seemed to aim at revenge against his aggressor, another struck him; so that the poor wild Elephant perceived he had nothing to do but to obey.

I have observed several times (says Edward Terry), that the Elephant does many things which are rather an indication of human reasoning, than a simple, natural instinct. He does whatever his master commands him. If he orders him to frighten any person, he advances towards him with the same fury as if he would tear him to pieces; and when he comes near him, he stops short, without doing

ay harm. If the master wishes to affront another, asks to the Elephant, who takes with his trunk dirty and throws it at his face. The Mogul has Ele- for the execution of criminals condemned to death. or leader bids them to dispatch these wretches soon, ear them to pieces in a moment with their feet: on ntrary, if he commands them to make these criminals sh, they break their bones one after another, and them suffer torments as cruel as those of the wheel.

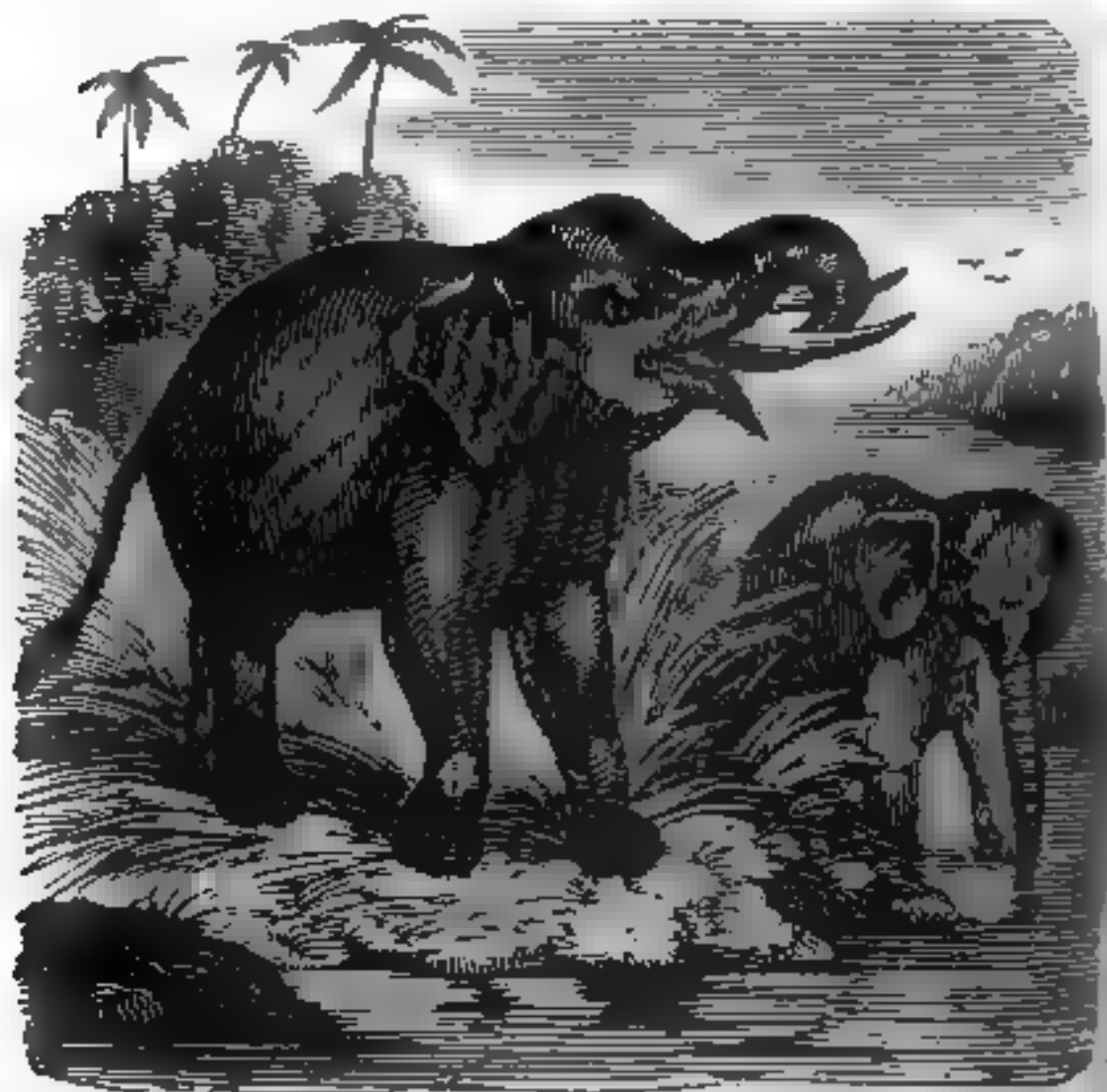
subjoin a few extracts respecting the Elephant he Library of Entertaining Knowledge.

Elephants of the Garden of Plants at Paris have, by rison with the Elephants in other menageries, a life sh happiness. Their cells are spacious; they are at particular periods, to range about a large enclo-



and they have a bath, which they enjoy with infi- light in warm weather.

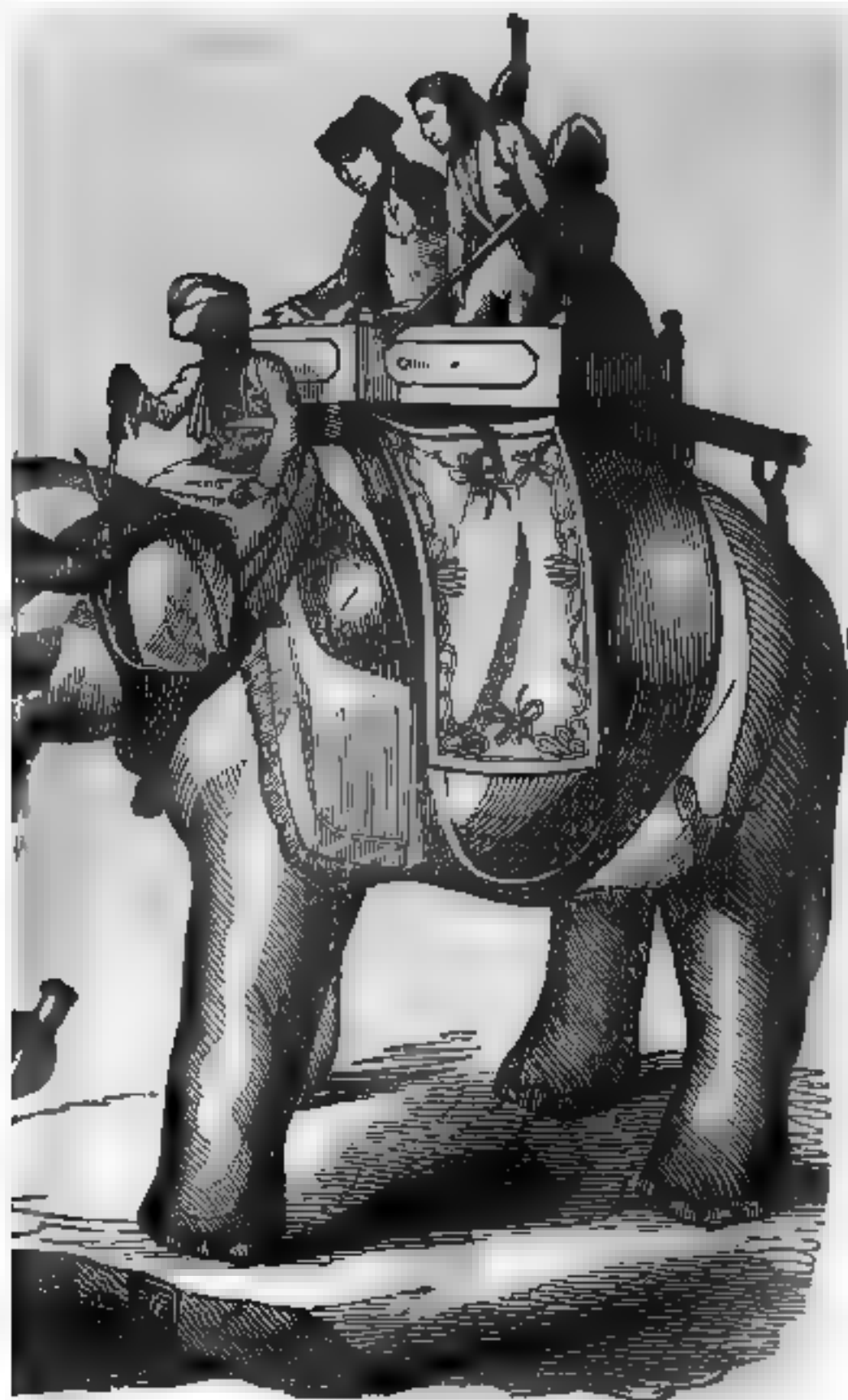
It is an error of some writers who state that the large cavity of the head is a reservoir for the liquid which the Elephant takes in his trunk;—it is held in his trunk by the action of his breath, but no part can pass beyond the sudden curve of the channels into the nostrils themselves, and thence into the head. When the Elephant ejects the



water from the trunk to the mouth, a gurgling sound is produced by the passage of the air; the lips are motionless.

Warren Hastings, the governor general of India, possessed an Elephant which had been ten years absent from the rule of man. His keeper being dismissed, he was refractory to all others who attempted to controul him; and at length escaped to the wild herd. After the long interval

re mentioned, his old keeper recognized him in a
y, and he instantly submitted himself to him.



tives of India take wild Elephants by means of
les, who are directed to the spot where an Ele-

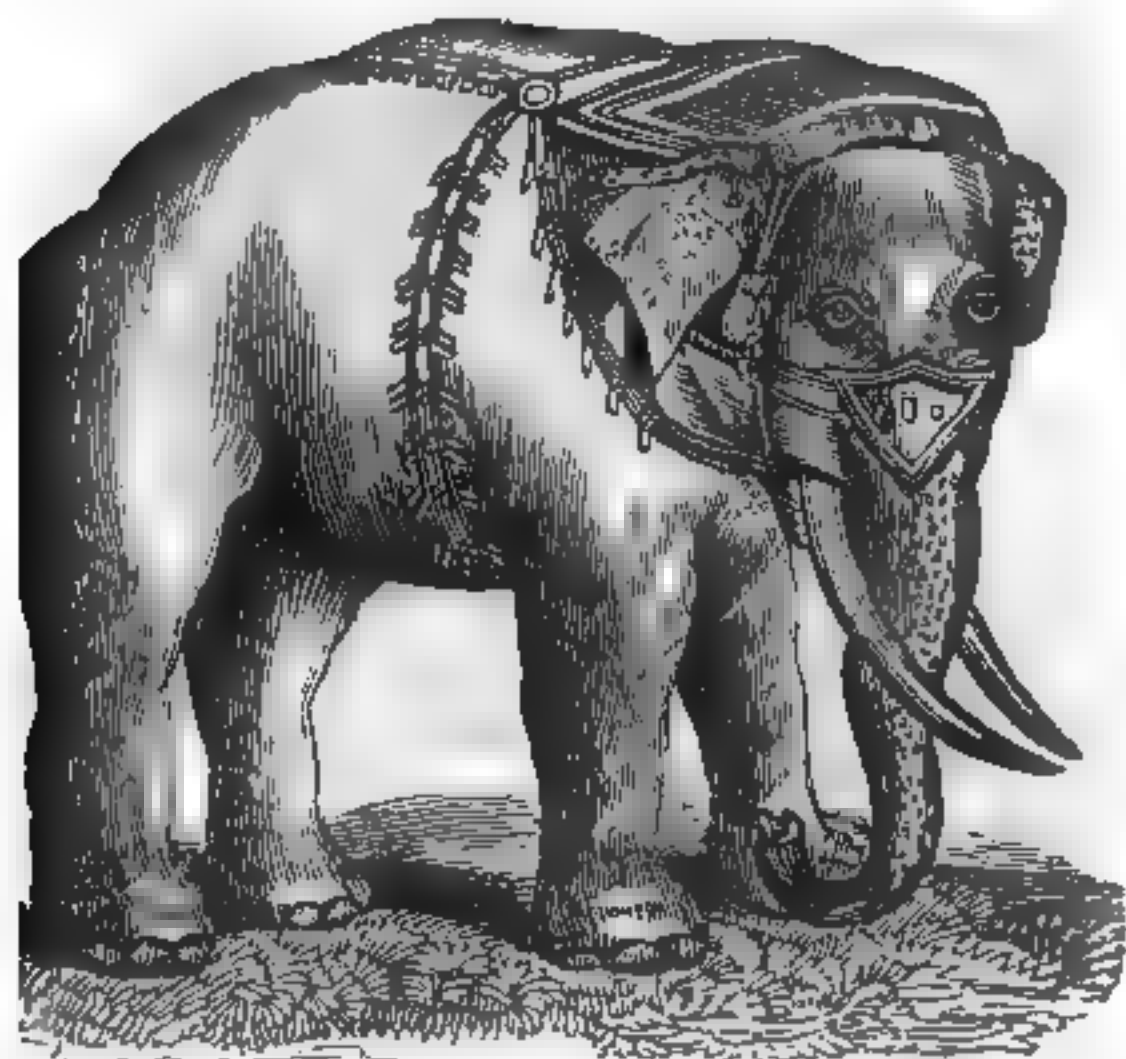
phant is feeding. These join him, and when in their company, he will suffer himself to be tied by his legs to strong trees by the hunters, who slyly creep under his belly. When the females quit him, he discovers his condition and becomes furious, throwing himself down, and thrusting his tusks into the ground. If he break the cables, and escape into the forest, the hunters dare not pursue him; but if he is adequately bound, he soon becomes exhausted with his own rage, and submits to be conducted by his treacherous friends to an appointed station, where he is soon tamed.

The Elephant, like all other animals, is sometimes made unruly by injudicious punishment. In the progress of the embassy from the Vizier of Oude to Calcutta, to meet Lord Cornwallis, a male baggage Elephant, carrying a number of people on his back, was suddenly irritated by his mohout, who struck him violently with his hawk. The unhappy man was in an instant pulled from his seat by the enraged beast, who suspended him by his trunk in a way which rendered escape impossible, and then dashed him to pieces.

The natives travel on Elephants for perhaps twenty miles or more in a forenoon without any apparent uneasiness. The smaller Elephants are sometimes ridden with a saddle and stirrups. Others have a pad on which six or eight persons can sit, some astride and some sideways. They descend from their seats upon the pad, by means of a rope.

The celebrated white Elephant, which is the only one in the possession of the King of Ava, is of a cream colour and has no appearance of disease or debility. It was taken in 1806 when young in the forests of Pegu, and is about twenty-five years old. Both the court and people consider it peculiarly inauspicious to want a white Elephant; hence the repute in which they are held, and the anxiety to ob-

em. The capture of a white Elephant is consequently rewarded.



has been asserted by Buffon and others that the
; Elephant sucks with its trunk. It is now ascer-
l that it sucks with its mouth like other animals.
ross says, "the young of the Elephant, at least all
I have seen, begin to nibble and suck the breast
after birth, pressing it with the trunk, which by na-
instinct they know will make the milk flow more
y into the mouth, while sucking. Elephants never
wn to give their young ones suck; and it often hap-
when the dam is tall, that she is obliged for some
o bend her body towards her young, to enable him
ch the nipple with his mouth: consequently, if ever
ank was used to lay hold of the nipple it would be

at this period, when he is making laborious efforts to reach it with his mouth, but which he could always easily do with his trunk, if it answered the purpose. In sucking,



the young Elephant always grasps the nipple, which projects horizontally from the breast, with the side of his mouth. I have very often observed this; and so sensible are the attendants of it, that with them it is a common practice to raise a small mound of earth, about six or eight inches high, for the young one to stand on, and thus save the mother the trouble of bending her body every time she gives suck, which she cannot readily do when tied to her picket.* M. Foucher d'Obsonville, who had observed the young Elephant playing with the teat of his mother with his trunk, attributes the prevalent error

* Phil. Trans. 1799.

circumstance. Mr Williamson says, that the position the two breasts of the female enables the young one (technically called a calf) to suck as it runs along by the side of the mother, or even under her belly.*

The following interesting account of the killing of the elephant in Cross's Menagerie, Exeter 'Change, London, is an extract from Hone's "Every-Day Book."

"On the Elephant's first arrival from India he had two keepers; these accompanied him to Exeter Change, and under their controul he implicitly submitted, until the death of one of them, within the first year after Mr. Cross's proprietorship, when the animal's increasing bulk and strength rendered it necessary to enlarge his den, or rather to construct a new one. The bars of the old one were not stronger than a man's arm. With Mr. Harrison, the carpenter, who built his new den, and with whom he had enjoyed a previous intimacy, he was remarkably docile, & accommodated himself to his wishes in every respect. He was occasionally troublesome to his builder from love play, but the prick of a gimlet was an intimation he obeyed, till a desire for fresh frolic prompted him to further interference, and then a renewal of the hint, or something edible from the carpenter's pocket, abated the interruption. In this way they went on together till the work was completed, and while the Elephant retained his senses, he was happy in every opportunity that afforded him the society of his friend Harrison. The den thus selected will be particularized presently: it was that wherein he remained till his death.

"About six years ago this Elephant indicated an excitement which is natural to the species, and which prevails every year for a short season. At the period now

* *Oriental Field Sports*, p. 43.

spoken of, his keeper having gone into his den to exhibit him, the animal refused obedience; on striking him with a slight cane, as usual, the Elephant violently threw him down: another keeper seeing the danger, tossed a pitchfork to his comrade, which the animal threw aside like a straw. A person then ran to alarm Mr. Cross, who hurried down stairs, and catching up a shovel, struck the animal violently on the head, and suddenly seizing the prostrated man, dragged him from the den, and saved his life.

“This was the first appearance of those annual paroxysms, wherein the Elephant, whether wild or confined, becomes infuriated. At such a period it is customary in India to liberate the Elephants and let them run to the forests, whence, on the conclusion of the fit, they usually return to their wonted subjection. Such an experiment being impossible with Mr. Cross, he resorted to pharmacy, and, in the course of fifty-two hours, succeeded in deceiving his patient into the taking of twenty-four pounds of salts, twenty-four pounds of treacle, six ounces of calomel, an ounce and a half of tartar emetic, and six drams of powder of gamboge. To this he added a bottle of croton oil, the most potent cathartic perhaps in existence; of this, a full dram was administered, which alone is sufficient for at least sixty full doses to the human being; yet though united with the preceding enormous quantity of other medicine, it operated no apparent effect. At the juncture Mr. Nyleve, a native East Indian, and a man of talent, suggested to Mr. Cross the administration of animal oil, as a medicine of efficacy. Six pounds of marrow from beef bones were accordingly placed within his reach as if it had been left by accident; the liquorish beast, who would probably have refused it had it been tendered him in his food, swallowed the bait. The result justified Mr. Nyleve's prediction. To my inquiry whether the marrow

not accelerate the operation which would have succeeded the previous treatment, Mr. Cross answered, he believed the beef marrow was the really active medicine, because, after an interval of three weeks, he gave the same quantity wholly undiluted, and the same violent effect followed. He never, however, could repeat the experiment; for the Elephant, in the years he refused the marrow, however it was administered, or with whatever it was mixed.

In subsequent years, during these periods of excitement, paroxysms successively increased in duration; but there was no increase of violence until the present year, when the symptoms became more alarming, and medicine produced no diminution of the animal's heightened rage. On Sunday, (the 26th of February,) a quarter of a pound of calomel was given to him in gruel. Three grains of this is a dose for a man; and though the entire quantity sent to the Elephant was more than equal to six hundred of those doses, it failed of producing in him any other effect than extreme suspicion of any food that was tendered him, if it at all varied in appearance from what he was accustomed to at other times. On Monday morning some ale was offered him in a bucket, for the purpose of assisting the operation of the calomel, but he would not touch it till Cartmell, his keeper, drank a portion of the ale for himself, when he readily took it. The fluid did not appear to accelerate the wished-for object; and, in fact, the calomel wholly failed to operate. Though in a state of constant irritation, he remained tolerably quiet throughout Monday and Tuesday, until Wednesday, the 1st of March, when additional medicine became necessary, and Mr. Cross conceived the thought of giving it to him through some person whom the Elephant had not seen, whom therefore he might regard as a casual visitor,

and not suspect. To a certain extent the feint succeeded. She sent some buns to him by a strange lad, in one of which a quantity of calomel had been introduced. He ate each bun from the boy's hand till that with the calomel was presented; instead of conveying it to his mouth he instantly dropped the bun, and crushed it with his foot. In this way he was accustomed to treat every thing of food that he disliked.

"It was always considered that the Elephant's den was of sufficient strength and magnitude to accommodate him, and be proof against any attack he was able to direct against it, even in his most violent displeasure. In the course of the four preceding years the front had sustained many hundred of his powerful lounges, without any part having been substantially injured, or the smallest portion displaced or rendered rickety in the slightest degree; but on the morning, (Wednesday), about ten o'clock, he made a tremendous rush at the front, wholly unexcited by provocation, and broke the tenon, or square end at the top of the hinge story-post, to which the gates are hung, from its socket or mortise in the massive cross beam above; and consequently, the strong iron clamped gates which hitherto resisted his many furious attacks upon them, lost their security. Mr. Cross was then absent from the menagerie, and, in the urgency of the moment, his friend, Mr. Tyler, a gentleman of great coolness and faculty of arrangement, gave orders for a strong massy piece of timber to be placed in front of his den, as a temporary fix against the broken story-post; and offered every thing he could think of to pamper, and, if possible, to allay the animal's fury. On Mr. Cross's arrival he rightly judged, that another such lounge would prostrate the gates; and, as it was known that Mr. Harrison, the carpenter of the den, who formerly possessed great influence over him, had no

all power of controuling him, it was morally certain, if any other persons attempted to repair the mischief in effectual way, their lives would be forfeited. Mr. Cross, under these circumstances of imminent danger, instantly determined to destroy the Elephant with all possible despatch, as the only measure he could possibly adopt for his own safety and the safety of the public. Having fixed his resolution, he went without a moment's delay to Mr. Gifford, chemist in the Strand, and requested to be supplied with a potent poison, destitute if possible of taste or smell. Mr. Gifford, sensible of the serious consequences of Mr. Cross in a pecuniary point of view, entreated him to reflect still further, and not to commit an act of which he might hereafter repent. Mr. Cross assured him that whatever irritation he might manifest, proceeded from his feelings of regard towards the Elephant, heightened by a sense of the loss that would ensue upon his purpose being effected; adding, that he had a firm conviction that as soon as the animal's death was immediately accomplished, a loss of human life must ensue. Mr. Gifford replied, that he had never seen or complied more reluctantly with his wishes on any occasion, and he gave him four ounces of arsenic.

Mr. Cross declares that on his way back, the confidence of his feelings was so great at that moment, that he imagines no person contemplating murder could endure greater agony. The arsenic was mixed with oats, and a quantity of sugar being added by way of inducement, it was offered to the Elephant as his ordinary meal by his keeper. The sagacious animal wholly refused to touch it. His eyes now glared like lenses of glass reflecting a red and burning light. In order to soothe him, some apples, to which fruit he had great liking, were repeatedly proffered; but though these were in a pure state, he refused them, one after the other, as they were presented to

him, and dropping each on the floor of his den instantly squelched it with his foot, and having thus disposed of a few he refused to take another. This utter rejection of food, with amazing increase of fury, heightened Mr. Cross's alarm. He again went out, and in great agitation procured half an ounce of corrosive sublimate to be mixed in a quantity of conserve of roses, securely tied in a bladder, to prevent, if possible, any scent from the poison, and with some hope that if the animal detected any effluvia through the air-tight skin it would be the odour of roses and sugar, which were substances peculiarly grateful to him. The Elephant was accustomed to swallow several things lying about within reach of his proboscis, which, tendered to him, he would have refused; and this habit suggesting the possibility that he might so dispose of that which, it was quite certain, if presented would have been rejected, the ball was placed so that he might find it; but the instant he perceived it he seemed to detect the purpose; he hastily seized it, and as hastily letting it fall violently smashed it with his foot.

"The peril was becoming greater every minute. The Elephant's weight was upwards of five tons, and from such an animal's excessive rage, in a place of insect confinement, the most terrible consequences were to be feared. Mr. Cross therefore intrusted his friend, Mr. Tyler, to direct and assist the endeavours of the keepers in the controul of the infuriated beast. He then despatched a messenger to his brother-in-law, Mr. Herring, in the New Road, Paddington, a man of determined resolution and an excellent shot, stating the danger, and requesting him to come to the menagerie. As he arrived with arms, they went together to Mr. Stevens, gunsmith, High Holborn, for rifles. On their way to him they called at Surgeons-hall, Lincoln's-Inn Fields, where they hoped

see the skeleton of an Elephant, in order to form a judgment of the places through which the shots would be most likely to reach the vital parts. In this they were disappointed, the college of surgeons not having the skeleton of the animal in its collection; but Mr. Clift, who politely received them, communicated what information he possessed on the subject. Mr. Stevens lent him three rifles, and at his house Mr. Cross left Mr. Herring to get the rifles ready, after instructing him to co-operate with Mr. Tyler, in attempting the destruction of the animal, if it should be absolutely necessary before he returned himself. From thence Mr. Cross hastened to Great Marlborough-street, for the advice of Mr. Joshua Brookes, the eminent anatomist. He found that gentleman in his theatre, delivering a public lecture. Sense of danger deprived Mr. Cross of the attentions due to time and place under ordinary circumstances, and he immediately addressed Mr. Brookes; "Sir, a word with you, if you please, immediately: I have not an instant to lose." Mr. Brookes concluded his lecture directly, and knowing Mr. Cross would not have intruded upon him except from extreme urgency, withdrew with him, and gave him such instructions as the case seemed to require. Mr. Cross, accompanied by one of Mr. Brookes's pupils, hastened homeward. They were met near the menagerie by Mr. Tyler, who entreated Mr. Cross to run to Somerset-house and obtain military assistance from that place, for that they had been compelled to leave the rifles in their own defence, and had put a number of shots in him without being able to get him down. Mr. Brookes's pupil accompanied Mr. Tyler, to assist him, if possible, while Mr. Cross rapidly proceeded to Somerset-house, where he found a sentry on duty, who did not dare quit his post, and referred him to the guard-room, where there were only two other privates and a corporal, who, at

first, declared his utter inability to lend him either men or arms; but on the earnest entreaties of Mr. Cross for aid, and his repeated representations, that he would be responsible in purse and person, and compensate any consequences that could be incurred by a dereliction from the formalities of military duty on so pressing an occasion, the corporal relented, and, with one of the privates, hastened to the menagerie.

“Mr. Cross now met Herring, of the public office, Bow-street, to whom he communicated the situation of affairs at Exeter 'Change, and requested his assistance in obtaining arms. Herring suggested an application to Bow-street for that purpose. It appears that from accident they were not procurable there, and deeming it possible that they might be got at sir W. Congreve's office, Mr. Cross ran thither, where he was also disappointed. Mr. Brook, glassman of the Strand, informed Mr. Cross there were small arms in the neighbourhood of Somerset-house; these, on returning to that place, were discovered to be old howitzers, and, therefore, useless. From thence he went on board the police-ship stationed on the Thames near Waterloo-bridge, expecting to find swivels, and was again disappointed; being informed, however, that swivels were fired during civic processions from Hawes' soap manufactory, on the Surrey side of the river, near Blackfriars-bridge, he rowed over and obtained a swivel, with a few balls, and the head of a poker, and the assistance of one of Mr. Hawes' men. The use for either, however, ceased to exist; for they arrived at the menagerie within a few minutes after the conclusion of such a scene as has never been exhibited in that place, nor, probably, in any other in this country. The Elephant was dead.

“To describe the proceedings at Exeter 'Change, from the time of Mr. Cross's leaving it, it is necessary to recur

period of Mr. Herring's appearance thither, on his return from Mr. Stevens', in Holborn, with the three ringleaders and one of Mr. Stevens' assistants. He found that the violence of the Elephant had increased every minute during the period of his departure with Mr. Cross, and that great personal hazard Mr. Tyler, with Cartmell and Newcomb, and the other keepers, had prevented him from breaking down the front of the den.

The keepers faced him with long pikes or spears, to deter him as much as possible from efforts to liberate himself from the confinement, which at ordinary periods he submitted to without restraint. When he lounged idly at the bars, they assailed him with great bravery, their threats and menaces prevented the frequency of attacks. In this state of affairs, Mr. Herring concurred with Mr. Tyler, that to wait longer for Mr. Cross would endanger the existence of every person present; having communicated the fact to Mrs. Cross, who had the highest regard for the animal from his ordinary docility, she was convinced, by their representations, that his death must be accomplished immediately, and therefore consented to it.

For the information of persons not acquainted with the menagerie, it is necessary to state that it occupies the entire range of the floor above Exeter 'Change, the lower part of which edifice within is occupied by shops belonging to Mr. Clarke. This part of the building, on the business of the day being concluded, is closed every night by the strong folding gates at each end, which, when open, allow a free passage to the public through the 'Change. It will be perceived, therefore, that the flooring above is Mrs. Cross's menagerie, or, at least, that very important part of it which is allotted to his matchless collection of quadrupeds. A large arrangement of other animals is in

other apartments, on a higher story. Nero, not well's Nero, which was baited by that showman wick, but a lion not only in every respect finer namesake, and, in short, the noblest of his noble in England, occupies a den in the menagerie (western door of the 'Change. Other lions and ani properly secured in their places of exhibition, on e of the room, and the east end is wholly occupied den of the Elephant ; its floor being supported by dation of brick and timber more than adequate to zing weight of the animal. 'The requisite stren construction of this flooring necessarily raise it ne feet from the flooring of the other part of the me which, though amazingly stable, and capable of any other beast in perfect safety, would have imm given way beneath the tread of the Elephant ; and forced his den he must have fallen through.

“ As soon, therefore, as his sudden death was on, Mr. Tyler went down to Mr. Clarke, and acqu him with the danger arising out of the immediat sity, suggested the instant removal of every pers the 'Change below, and the closing of the 'Chang Mr. Clarke, and all belonging to his establishm the propriety of their speedy departure, and in a f utes the gates were barred and locked. By the of these precautions, if the Elephant had broken d floor, no lives would have been lost, although muc ble property would have been destroyed ; and, event contemplated, the animal himself would ha confined within the basement. Still, however, exertion of his enormous strength could have fo gates. If he had made his entry into the Strand, possible to conjecture the mischief that might h sued in that crowded thoroughfare, from his in passion.

"On Mr. Tyler's return up stairs from Mr. Clarke, it was evident from the Elephant's extreme rage, that not a moment was to be lost. Three rifles therefore were immediately loaded, and Mr. Herring, accompanied by Mr. Stevens' assistant, entered the menagerie, each with a rifle, and took their stations for the purpose of firing. Mr. Tyler pointed out to the keepers the window places, and such recesses as they might fly to if the Elephant broke through, and enjoining each man to select a particular spot as his own exclusive retreat, concluded by showing the danger of any two of them running to the same place for shelter. The keepers with their pikes placed themselves in the rear of Mr. Herring and his assistant, who stood immediately opposite the den, at about the distance of twelve feet in the front. Mr. Herring requested Cartmell to call in his usual tone to the Elephant when he exhibited him to visitors, on which occasions the animal was accustomed to face his friends with the hope of receiving something from their hands. Cartmell's cry of 'Chunee! Chunee! Chuneelah!' in his exhibiting tone, produced a somewhat favourable posture for his enemies, and he instantly received two bullets aimed from the rifles towards the heart; they entered immediately behind the shoulder-blade, at the distance of about three inches from each other. The moment the balls had perforated his body he made a fierce and heavy rush at the front, which further weakened the gates, shivered the side bar next to the dislodged story-post, and drove it out into the managerie. The fury of the animal's assault was terrific, the crash of the timbers, the hallooing of the keepers in their retreat, the calls for 'rifles! rifles!' and the confusion and noise incident to the scene, rendered it indescribably terrific. The assailants rallied in a few seconds, and came pointing their

spears with threats. Mr. Tyler, having handed two rifles, they were discharged as before; and, as he produced a similar desperate lounge from the entrance of the den, the elephant charged the beast at the front of his den. Had it been effective he had descended on the floor, his weight must have inevitably carried it, together with himself, his assailant and the greater part of the lions, and other animals in the 'Change below, and by possibility have buried the entire menagerie in ruins. 'Rifles! rifles!' were called for, and from this awful crisis it was only by the power of Mr. Tyler and some persons outside, to be quick enough for the discharge of one rifle at a time. The maddened animal turned round in his den instantly, apparently with the design of keeping his back from the riflemen, who after the first two discharges could only obtain single shots at him. The shutter of a small grated window, which stood in a projection from the den, at one of the back corners, was now unshut, and from this position Mr. Herring fired several times through the grating. The Elephant thus attacked in the rear as well as the front, flew round the den with the speed of a race-horse, uttering frightful yells and screams, and stopping at intervals to bound from the back again to the front. The force of these rushes shook the building, and excited the most terrifying expectation that he would bring down the entire mass of wood and work, and project himself among his assailants.

"After the discharge of about thirty balls, he stood up and sunk deliberately on his haunches. Mr. Herring, conceiving that a shot had struck him in a vital part, called out—'He's down, boys! he's down!' and so he was. It was only for a moment: he leapt up with renewed vigour, and at least eighty balls were successively discharged at him from different positions before he fell a second time.

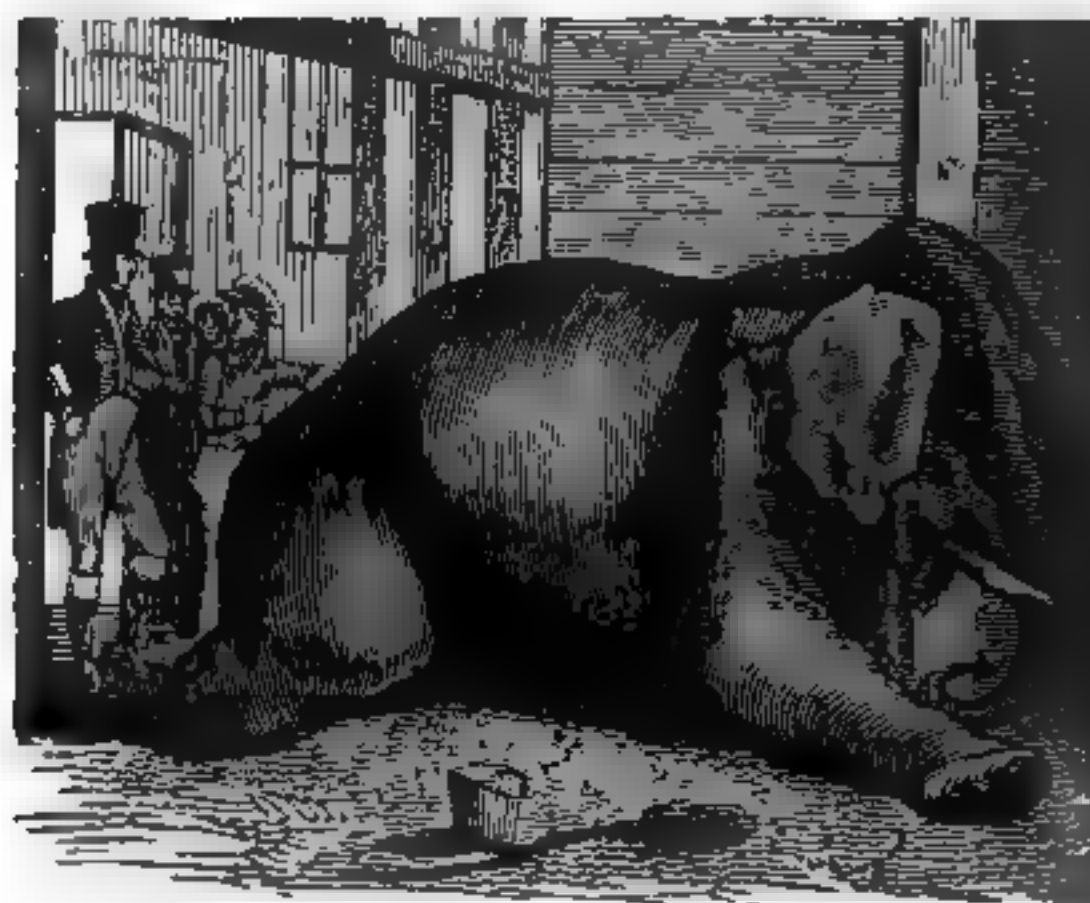
time. Previous to that fall, Mr. Joshua Brookes had arrived with his son, and suggested to Mr. Herring to aim especially at the ear, at the eye, at the gullet.

“The two soldiers despatched from Somerset-house by Mr. Cross came in a short time before Mr. Brookes, and discharged about three or four rounds of ball cartridge, which was all the ammunition they had. It is a remarkable instance of the animal's subjection to his keeper, that though in this deranged state, he sometimes recognized Cartmell's usual cry of ‘Chunee! Chunee! Chuneelah!’ by sounds with which he was accustomed to answer the call, and that more than once, when Cartmell called out ‘Bite, Chunee! bite!’ which was his ordinary command to the Elephant to kneel, he actually knelt, and in that position received the balls in the parts particularly desired to be aimed at. Cartmell, therefore, kept himself as much as possible out of view as one of the assailants, in order that his voice might retain its wonted ascendancy. He and Newsam, and their comrades took every opportunity of thrusting at him. Cartmell, armed with a sword at the end of a pole, which he afterwards affixed to a rifle, pierced him several times.

“On the Elephant's second fall he lay with his face towards the back of the den, and with one of his feet thrust out between the bars, so that the toes touched the menagerie floor. At this time he had from a hundred and ten to a hundred and twenty balls in him; as he lay in this posture, Cartmell thrust the sword into his body to the hilt. The sanguinary conflict had now lasted nearly an hour; yet, with astonishing alacrity, he again rose, without evincing any sign that he had sustained vital injury, though it was apparent he was much exhausted. He endeavoured to conceal his head by keeping his rear to the front; and lest he should either make a successful effort

at the gate, or, on receiving his death-wound, fall backwards against it, which would inevitably have carried the whole away, the keepers availed themselves of juncture to rapidly lash the gates of his den with a chain and ropes so securely, that he could not force them out bringing down the entire front.

“Mr. Herring now directed his rifle constantly to the ear; one of these balls took so much effect, that the elephant suddenly rushed round from the blow, and made his last furious effort at the gates. Mr. Tyler described this rush as the most awful of the whole. If the gates had not been firmly lashed, the animal must have gone through: for, by this last effort, he again dislodged them and they were kept upright by the chain and ropes attached. Mr. Herring from this time chiefly directed his fire at the gullet; at last he fell, but with so much deliberation,



in a position so natural to his usual habits, that he seemed to have lain down to rest himself. Mr. Herring

ed to fire at him, and spears were run into his sides, he remained unmoved, nor did he stir from the first moment of his fall. Four or five discharges from a rifle in his ear produced no effect: it was evident that he without sense, and that he had dropped dead, into the mire wherein he always lay when alive."

The following narrative is also from Hone's "Every Day Book."

In May, 1820, for about a fortnight a fine Bengal Elephant (*Elephas Indicus*, Cuvier—*Elephas Maximus*, Linn.)

been exhibited at Geneva. The Elephants of this species are taller than those of Africa. They have an elevated cranium, which has two protuberances on its summit; the frontal bone is rather concave, and the head proportionably longer; their tusks are smaller than those of the African Elephant. The animal in question had but one; he had lost the other by some accident. He was six feet high, and of a dark-brown colour; he was ten years old, and had been bought in London six years before. Mademoiselle Garnier, (the niece of his proprietor), whom he was much attached, always travelled with him. He was the proprietor of an Elephant which had broken its leg at Venice a few years previously, and was killed by a gun-shot, after it had committed considerable ravages in that city.

The present Elephant was of a much gentler character, and had excited a general interest during its stay at Geneva, by its docility and intelligence; it performed the usual tricks which are taught these animals, with a promptitude of obedience, a dexterity, and almost a grace, which were quite remarkable. Whenever Mademoiselle Garnier witnessed his exercises, her presence seemed to call forth all these qualities to an extraordinary degree. According to her statement, he was so familiar and social

that he had more than once appeared on the stage at Lille, Antwerp, &c. playing the principal part in a procession, and seeming proud to carry the lady who acted the princess, before whom he would kneel to take her on his back. So far from being frightened at the lights, the music, and the noise of the house, he seemed delighted to take a part in the ceremony.

“Accustomed to liberty, and much as he loved it, he yet endured confinement with patience, and when his keeper came to fasten him up for the night, he used to stretch out his foot to receive the iron ring by which he was chained till morning, to a post deeply fixed in the earth. Unlike these animals in England, he did not travel in a cage, but was led from one town to another by night; he had three drivers, his keeper, properly so called, and two others, one of whom had always inspired him with more fear than attachment.

“During the latter part of his stay at Geneva he had exhibited symptoms of excitement and restlessness, arising from two causes—the one, the frequent discharges of musketry from the soldiers who were exercised near his habitation, at which he was greatly irritated; the other, the paroxysms to which these animals are subject for several weeks in the spring. Nevertheless, he had never disobeyed nor menaced his keepers.

“His departure was fixed for the 31st of May. He left Geneva at midnight, the gates and draw-bridges having been opened for that purpose by permission of the syndic of the guard, the magistrate at the head of the military police. He was driven by his keeper and his two assistants, who carried a lantern. Mademoiselle Garnier was to follow in the morning. He made no difficulty in crossing the draw-bridge, and took the road to Switzerland apparently in high spirits. But about a quarter of a league

from the town he appeared out of humour with the keeper, and disposed to attack him. The man ran away towards the city; the Elephant pursued him up to the gate, which the officer on guard opened, on his own responsibility, wisely calculating that it would be more easy to secure him within the town than without it, and that he might do immense mischief on the high roads, especially as it was the market-day at Geneva. He re-entered the town without hesitation, pursuing, rather than following his keeper and guides, between whom and himself all influence, whether of attachment or of fear, seemed at an end. From this moment he was his own master.

“He walked for some time in the place de Saint Germain, appearing to enjoy his liberty and the beauty of the sight. He lay down for a few minutes on a heap of sand, repaired for some repairs in the pavement, and played with the stones collected for the same purpose. Perceiving one of his guides, who was watching him from the entrance of one of the bridges over the Rhone, he ran at him, and would have attacked him, and probably done him some serious injury, if he had not escaped.

“Mademoiselle Garnier having been informed of what had passed, hastened to the spot, and trusting to the attachment he had always shown for her, went up to him with great courage, with some dainties of which he was particularly fond, and speaking to him with gentleness and confidence, led him into a place enclosed with walls near the barrack he had inhabited, into which he could not be induced to return. This place, called the Bastion Hollande, adjoined a shed containing caissons, wagons, and gun-carriages; there were also cannon-balls piled up in an adjoining yard. Being left alone, and the gate shut upon him, he amused himself with trying his strength and skill upon every thing within his reach; he

raised several caissons and threw them on their sides, and seemed pleased at turning the wheels; he took up the balls with his trunk, and tossed them in the air, and ran about with a vivacity which might have been ascribed either to gaiety or to irritation.

“At two in the morning, the syndic of the guard being informed of the circumstance, went to the spot to consult on the measures to be taken. Mademoiselle Garnier, in a state of the utmost distress and agitation, entreated that the Elephant might be killed in the most speedy and certain way possible. The syndic, sharing in the general feeling of interest the noble and gentle creature had excited in the town, opposed her desire. He represented that the animal was now in a place of security against danger, whether to the public or himself; and that as his present state of irritation was, in its very nature, transient, it would soon yield to a proper regimen; but Mademoiselle Garnier remembered the occurrences at Venice, and felt the whole weight and responsibility of the management of the animal was on herself alone; for the keeper and guides had decidedly refused to attend upon him again, and she persisted in her demand. The magistrate would not give his consent until it was put into writing and signed.

“From that moment arrangements were made for destroying him. The chemists were laid under contribution for drugs, while two breaches were made in the wall, at each of which a four-pounder was placed, which was to be the *ratio ultima* if the poison failed.

“M. Mayor, eminent as a surgeon, and for his learning in natural history, and one of the directors of the museum, had taken great delight in visiting the Elephant during his stay, and the animal had evinced a particular affection for him. This induced the magistrate to request

Mayor to administer the poison. M. Mayor, after mixing about three ounces of prussic acid with about ten ounces of brandy, which was the animal's favourite liquor, led him by his name to one of the breaches. The elephant came immediately, seized the bottle with his trunk, and swallowed the liquor at one draught, as if it had been his usual drink. This poison, the operation of which, even in the smallest doses, is usually tremendously rapid, did not appear to produce any sensible effect on him; he walked backwards with a firm step to the middle of the enclosure, where he lay down for some moments. It was thought that the poison was beginning to act, but he soon rose again, and began to play with the caissons, and to walk about in the court-yard of the arsenal. M. Mayor, presuming that the prussic acid which had been kept some time had lost its strength, prepared three bottles of an ounce of arsenic each, mixed with honey and sugar. The Elephant came again at his call, and took them all from his hand. At the expiration of a quarter of an hour, he did not appear at all affected by them. A small dose was then offered him; he took it, smelt at it some minutes, then threw it to a distance, and began again to play all sorts of tricks. Sometimes he came to the breach, and, twining his trunk round the mouth of the cannon, pushed it back as if he had some indistinct notion of the danger which threatened him.

It was five in the morning when the first dose of poison was administered; an hour had elapsed, and no symptoms of its internal action appeared. Meanwhile the market time drew near, the space around the walls was rapidly filling with inquisitive spectators, and the orders were given to fire. The gunner seized the moment in which the Elephant, who had advanced to the breach, was firing, and presented his side. The mouth of the can-

non almost touched him. The ball entered near behind the right eye, came out behind the left through a thick partition on the opposite side of



closure, and spent itself against a wall. Th stood still for two or three seconds, then tottered on his side without convulsion or movement."

THE RHINOCEROS.

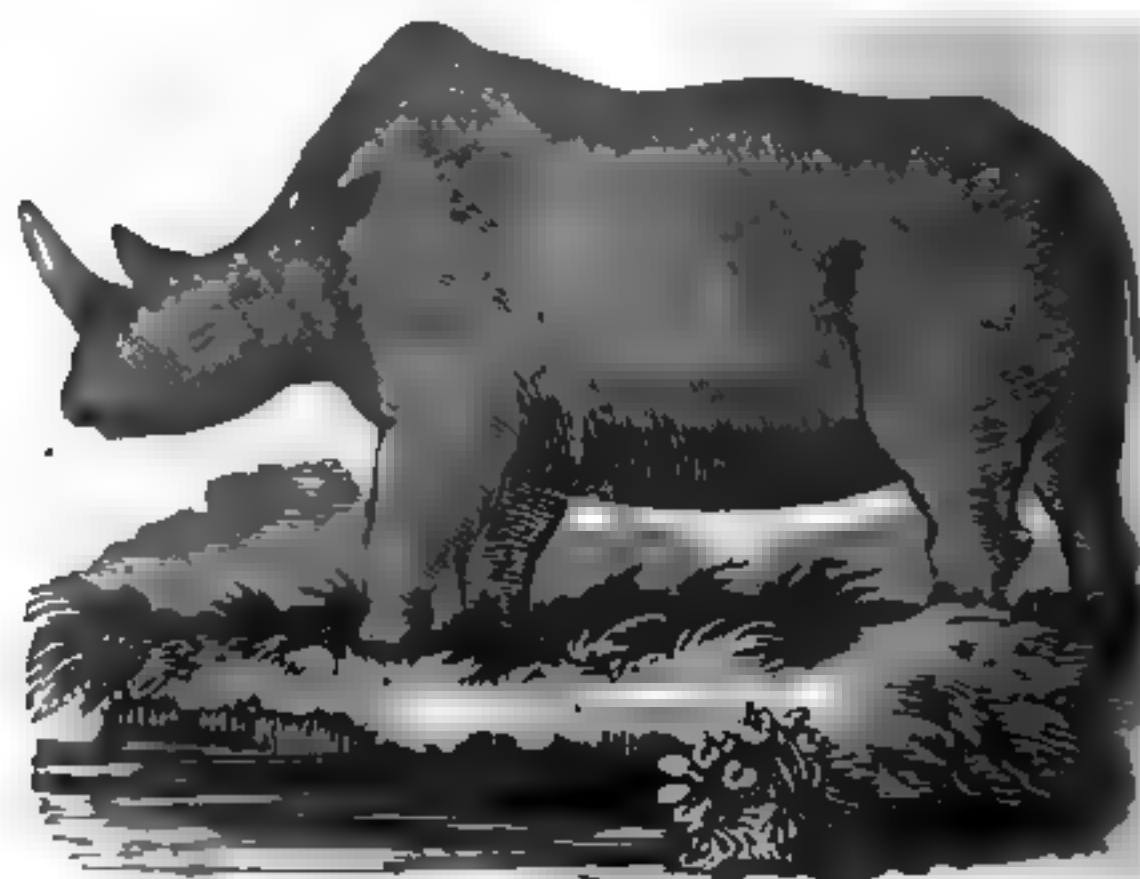
AFTER the elephant, the Rhinoceros is the most of all quadrupeds. He is at least twelve feet i from the extremity of the snout to the tail; six feet in height; and the circumference of his bo near equal to his length; he is therefore like the in bulk; and if he appears much smaller, it is be legs are much shorter in proportion to those of phant; but he differs widely from that sagacious in his natural faculties, and his intelligence; b

from Nature merely what she grants in common to mals; deprived of all feeling in the skin, having no answering the purpose of hands, nor distinct for the of feeling, he has nothing instead of a trunk, but a ble upper lip, in which centres all his dexterity.



uperior to other animals only in strength, size, and ansive weapon which he carries upon his nose, and is peculiar to him. This weapon is a very hard olid throughout, and placed more advantageously e horns of ruminating animals; these only protect erior parts of the head and neck, whilst the horn of inoceros defends all the exterior parts of the snout, erves the muzzle, the mouth, and the face from so that the tiger attacks more readily the elephant, ng his trunk, than the Rhinoceros, which he can- ick in front, without running the danger of being for the body and limbs are covered with an impen- skin; and this animal fears neither the claws of er nor the lion, nor even the fire and weapons of tsman; his skin is a dark leather, of the same col- t thicker and harder than that of the elephant; he t feel the sting of flies; he cannot contract his . is only folded by large wrinkles on the neck, the ra, and the buttocks, to facilitate the motions of the

legs, which are massive, and terminate in large feet, armed with three great claws. The skin of the two-horned



Rhinoceros is much more easily penetrable * than that of the single-horned. He has the head larger in proportion than the elephant; but the eye still smaller, which is never opens entirely, and they are so situated that the animal can see only what is in a direct line before him. The upper jaw projects above the lower; and the upper lip has a motion, and may be lengthened six or seven inches; it is terminated by a sharp edge, which enables this animal, with more facility than other quadrupeds, to gather branches and grass, and divide them into handfuls, as the elephant does with his trunk. This muscular and flexible lip is a sort of trunk very incomplete, but which is equally calculated for strength and dexterity.

* It not only appears that the skin is thinner than that of the single-horned Rhinoceros, but it seems that it has not the same folds. Mr. Burchell says that there are two distinct species of the two-horned Rhinoceros in South Africa. See page 212.

head of those long ivory teeth which form the tusks of elephant, the Rhinoceros has his powerful horn, and strong incisive teeth in each jaw. These incisive teeth, which the elephant has not, are placed at a great distance from each other in the jaws of the Rhinoceros. Besides these, twenty-four smaller teeth, six on each side of each jaw. His ears are always erect; they are for the form, like those of a hog, only they are larger in proportion to his body; they are the only hairy parts of his head. The end of the tail is, like that of the elephant, furnished with a tuft of large bristles, very hard and very long. Huge and seemingly unwieldy as the Rhinoceros is, he has the power of running with very great swiftness. The Rhinoceros which arrived in London in 1739 had been sent from Bengal. Although he was young (being two years old), the expenses of his food, and his care, amounted to near one thousand pounds sterling; he was fed with rice, sugar, and hay. They gave him daily twenty pounds of rice, mixed with three pounds of sugar; and they divided into three parts. He had also a great quantity of hay and green grass, to which he gave the preference. His drink was nothing but water, of which he drank a great quantity at once. He was of a quiet disposition, and let his manager touch him on all the parts of his body. He grew unruly when he was struck, or was provoked; and in both cases he could not be appeased without giving him something to eat. When he was angry, he leaped forward with impetuosity to a great height, and struck furiously the walls with his head; which he did with a prodigious quickness, notwithstanding his heavy frame.

This Rhinoceros, when he was two years old, was not much higher than a young cow who has not yet borne young; but his body was very long, and very thick. The

tongue of this young Rhinoceros was soft, like that of a calf; his eyes had no vivacity; they are like those of a hog in form, and were placed very low; that is, nearer the opening of the nostrils.

Mr. Parsons says, that he has observed a very particular quality in this animal; he hearkened with a sort of continual attention to any noise; so that, if he even was asleep, employed in eating, or in satisfying other urgent wants, he started instantly, raised up his head, and gave attention till the noise had ceased.

It is certain that some Rhinoceroses have but one horn on the nose, and others two. In the two-horned Rhinoceros, one of the horns is smaller than the other, and is situated above it. When the animal is quiescent these horns are loose, but they become fixed when it is irritated. There are single horns of three feet and a half, and perhaps of more than four feet in length, by six or seven inches in diameter at the basis; there are also double horns which are but two feet in length. Commonly, the horns are brown, or olive colour; yet some are gray, and even white. They have only a small concavity, in form of a cup, at their basis, by which they are fastened to the skin of the nose; the remaining part of the horn is solid and very hard. It is with this weapon that the Rhinoceros is said to attack, and sometimes to wound mortally the largest elephants, whose long legs give to the Rhinoceros, who has them much shorter, an opportunity of striking them with his horn under the belly, where the skin is tender, and more penetrable; but when he misses the first blow, the elephant throws him on the ground, and kills him.

The horn of the Rhinoceros is more valued by the Indians than the ivory of the elephant; not so much on account of the matter, of which they make several works with the chisel, but for its substance, to which they attribute

s virtues, and medicinal properties. The white ones, e most rare, are also those which they value most. made of this horn are used to drink out of by many of ndian princes, under the erroneous idea that when poisonous fluid is put into them, the liquor will fer- and run over the top.

ie Rhinoceros, without being ferocious or carnivorous, ven very wild, is nevertheless untameable. He is of nature of a hog, blunt and grunting, without intellect, out sentiment, and without tractableness. These an- are also, like the hog, very much inclined to wallow e mire; they like damp and marshy places, and sel- leave the banks of rivers. They are found in Asia Africa, in Bengal, Siam, Laos, in the Mogul domin- in Sumatra, in Java, in Abyssinia, and about the of Good Hope.* But, in general, the species is not so erous, or so universally spread, as that of the elephant. female brings forth but one young, and at a great dis- e of time. In the first month the Rhinoceros is not h bigger than a large dog; he has not, when first ght forth, the horn on the nose, although the rudiment is seen in the foetus. When he is two years old, this is only an inch long; and in his sixth year it is about inches; and as some of these horns have been seen near four feet long, it seems they grow till his middle and perhaps during the whole life of the animal, which t be long, since the Rhinoceros described by Mr. Par- was not come to half his growth when he was two s old; which makes it probable, that this animal lives, a man, seventy or eighty years.

ithout being useful, as the elephant, the Rhinoceros

The two-horned Rhinoceros is only found in Africa. *Le Keux's trations of Natural History.*

is very hurtful, by the prodigious devastation which it makes in the fields. The skin is the most valuable of this animal. His flesh is excellent, according to the taste of Indians and Negroes. Kolben says, he has eaten it with great pleasure. His skin makes the best and hardest leather in the world; and not only his horns, but all the other parts of his body, and even his blood, urine, and his excrements, are esteemed as antidotes to poison, or a remedy against several diseases; but however, all those virtues are imaginary.

The Rhinoceros feeds upon herbs, thistles, plants, and shrubs; and he prefers this wild food to the sweet sature of the verdant meadows: he is very fond of reeds and canes, and eats all sorts of corn. Having no taste ever for flesh, he does not molest small animals, nor fears the large ones, living generally in peace with all, even with the tiger, who often accompanies him without daring to attack him.

The Rhinoceroses do not herd together, nor make troops, like the elephant; they are wilder, and more wary, and perhaps more difficult to be hunted and subdued; they never attack men unless provoked; but they become furious, and are very formidable: the scimitars of Damascus, the scymitars of Japan, cannot make an impression in his skin; the darts and lances cannot pierce him through his skin even resists the balls of a musket; those of lead come flat upon his leather, and the iron ingots cannot penetrate through it: the only places absolutely penetrated in this body armed with a cuirass, are the belly, the neck, and round the ears; so that huntsmen, instead of following this animal standing, follow him at a distance, track, and wait to approach him at the time that he lies or rests himself. There is in the King of France's collection a *foetus* of a Rhinoceros, which was sent from the

and extracted from the body of the mother. It is in a memorial which accompanied this present, twenty-eight hunters had assembled to attack this rhinoceros; they had followed her far off for some days, and then men walking now and then before, to reconnoitre the position of the animal. By these means they reached her when she was asleep, and came so near in that they discharged, all at once, their twenty-four shots into the lower parts of her belly.

It is seen, that this animal has a good ear; it is pretended, that he has the sense of smelling in perfection; it is pretended he has not a good eye, and sees not him: that his eyes are so small, and placed so obliquely, they have so little vivacity and motion. This fact needs no other confirmation. His voice, when calm, resembles the grunting of a hog; and when angry, his sharp cries are heard at a great distance. Though he lives upon vegetables, he does not ruminate, it is probable, that, like the elephant, he has a large stomach, and very large bowels, which supply the empty paunch. His consumption, though very great, is comparable to that of the elephant; and it appears, from the thickness of his skin, that he loses less than the elephant by his perspiration.

This rhinoceros about a year old, recently brought from Africa, is now exhibiting in Boston. The engraving furnishes a very exact representation of this animal, its length from the nose to the insertion of the tail three feet; its height three feet, four inches. The length of its head is eighteen inches; that of its tail, thirteen inches. The horn has not yet made its appearance at the nose, but there is a large protuberance, which is the place where it is growing, and seems to form the basis of it. *The animal, when disturbed, makes noise like a young calf. It has very much the*

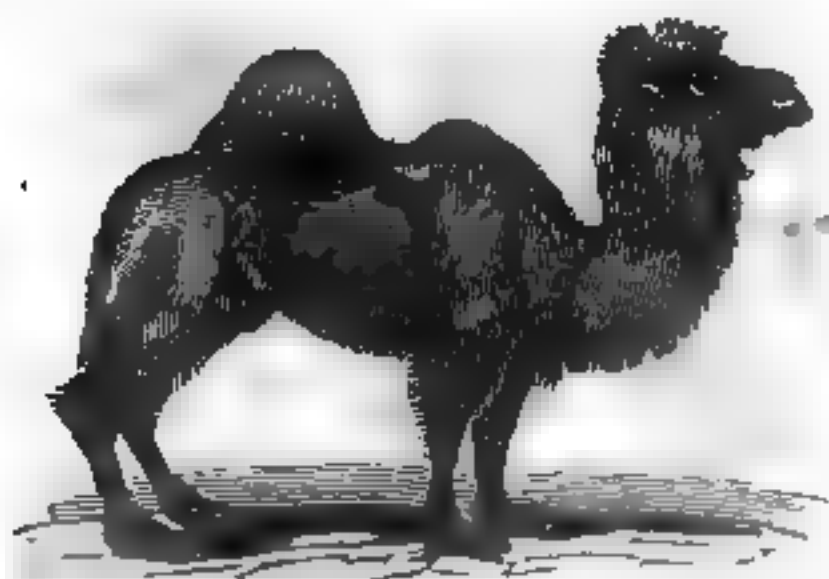
air and manners of a hog ; it betrays no fear or shyness, But seems constantly intent upon getting something to eat. It feeds upon hay, potatoes, and grain, and so greedy is its appetite that nothing comes amiss.



“Two species of the two-horned Rhinoceros are found in South Africa. The figure (at page 216) was drawn from life by Mr. Melville, and conveys an accurate representation of the species which abounds most in the Bechuanaland country. The horn of the female is, however, much longer and more slender than that of the male ; I have one in my possession three and a half feet long. Being a strong, ponderous and elastic substance, it is much prized by the natives for handles to their battle-axes. The secondary horn is in many instances so small as to be scarcely perceptible at a little distance. The general figure of the Rhinoceros is that of an enormous hog. His prodigious size and strength, and his destructive horn, point out this animal, in my apprehension, as the real unicorn of scripture.

Thompson's Travels in Southern Africa.

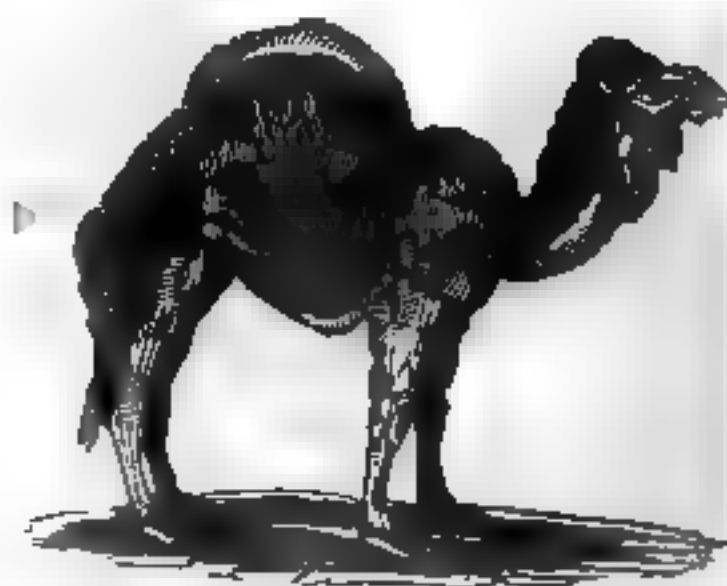
THE CAMEL AND THE DROMEDARY.



Two names do not include two different species, but indicate two distinct breeds, subsisting from time immemorial, in the Camel species. The principal, and, as we said, the only perceptible character by which they differ, consists in the Camel's bearing two bunches, or humps, and the Dromedary only one. The latter is much less, and not so strong as the Camel; but they often herd and procreate together; and the progeny from this cross breed is more vigorous, and of more value, than the others.

A mongrel issue from the Dromedary and the Camel forms a secondary breed, which also mix and multiply with the first; so that in this species, as well as in that of domestic animals, there are to be found a great variety according to the difference of the climates they are bred in. Aristotle has judiciously marked the two principal breeds; the first (which has two bunches), under the name of the BACTRIAN CAMEL; and the second, under the name of the ARABIAN CAMEL. The first are called TURKISH and the others ARABIAN CAMELS. This division still exists, with this difference only, that it appears, since

the discovery of those parts of Africa and Asia which were unknown to the ancients, that the Dromedary is, without



comparison, more numerous and more universal than the Camel; the last being seldom to be found in any other place than in Turkey, and in some other parts of the Levant; while the Dromedary, more common than any other beast of his size, is to be found in all the northern parts of Africa, in Egypt, in Persia, in South Tartary, and in all the northern parts of India.

The Dromedary, therefore, occupies an immense tract of land, while the Camel is confined to a small spot of ground; the first inhabits hot and parched regions; the second a more moist and temperate soil. The Camel appears to be a native of Arabia; for it is not only the country where there is the greatest number, but it is best accommodated to their nature. Arabia is the dryest country in the world; and the Camel is the least thirsty of all animals, and can pass seven days without drink. The land is almost in every part dry and sandy; the feet of the Camel are formed to travel in sand; while on the contrary, he cannot support himself in moist or slippery ground. Herbage and pasture are wanting in this country, as is the ox, whose place is supplied by the Camel.

Arabs regard the Camel as a present from heaven, and animal, without whose aid they could neither subside, nor travel. It has been emphatically called the 'the desert. Its milk is their common nourishment; likewise eat its flesh, especially that of the young which they reckon very good. The hair of these, which is fine and soft, is renewed every year, and them to make stuff for their clothing and their furniture. Blessed with their Camels, they not only want nothing, but they even fear nothing. With them they in a single day, place a tract of desert, of fifty miles, between them and their enemies, and all the armies of the world would perish in the pursuit of a troop of them. Let any one figure to himself a country without trees, and without water, a burning sun, a sky always clear, plains covered with sand, and mountains still more distant, over which the eye extends, and the sight is lost, without being stopped by a single living object; a dead *flayed* (if I may be allowed the expression) by the sun, which presents nothing but bones of dead bodies, scattered here and there, rocks standing upright or overgrown; a desert entirely naked, where the traveller cannot draw his breath under the friendly shade; where there is nothing to accompany him, and where nothing reminds him of living nature; an absolute void a thousand times more frightful than that of the forest, whose verdure, in no measure, diminishes the horrors of solitude; an anxiety which he in vain attempts to overrun; for hunger, thirst, and burning heat, press on him every weary moment that remains between despair and death. Nevertheless, the Arab has found means to surmount these difficulties, and even to appropriate to himself these gifts of Nature; they serve him for an asylum; they secure his repose, and maintain him in his independence.

But why does not man know how to make use of them without abuse? This same Arab, free, independent, tranquil, and even rich, instead of respecting those deserts as the ramparts of his liberty, soils them with guilt: he traverses over them to the neighbouring nations, and robs them of their slaves and gold: he makes use of them to exercise his robberies, which, unfortunately he enjoys more than his liberty; for his enterprises are almost always successful: notwithstanding the caution of his neighbours, and the superiority of their forces, he escapes their pursuit, and, unpunished, bears away all that he has plundered them of.

An Arab who destines himself to this business of land-piracy, early hardens himself to the fatigue of travelling: he accustoms himself to pass many days without sleep; to suffer hunger, thirst, and heat; at the same time he instructs his Camels, he brings them up, and exercises them in the same method. A few days after they are born, he bends their legs under their bellies, and constrains them to remain on the earth, and loads them, in this situation, with a weight as heavy as they usually carry, which he only relieves them from to give them a heavier. Instead of suffering them to feed every hour, and drink even when they are thirsty, he regulates their repasts, and, by degrees, increases them to greater distances between each meal, diminishing also, at the same time, the quantity of their food. When they are a little stronger, he exercises them to the course; he excites them by the example of horses, and endeavours to render them also as swift, and more robust; at length, when he is assured of the strength and swiftness of his Camels, and that they can endure hunger and thirst, he then loads them with whatever is necessary for his and their subsistence. He departs with them, arrives unexpectedly at the borders of the desert, stops

he first passenger he sees, pillages the straggling habitations, and loads his Camels with his booty. If he is pursued he is obliged to expedite his retreat; and then he displays all his own and his animals' talents. Mounted on one of his swiftest Camels, he conducts the troop, makes them travel day and night, almost without stopping either to eat or drink. In this manner, he easily passes over three hundred miles in eight days; and, during all that time of fatigue and travel, he never unloads his Camels, and only allows them an hour of repose and a ball of paste each day. They often run in this manner for eight or nine days without meeting with any water, during which time they never drink; and when by chance they find a pool at some distance from their route, they smell the water at more than half a mile before they come to it. Thirst now makes them redouble their pace; and then they drink enough for all the time past, and for as long to come; or often they are many weeks in travelling; and their time of abstinence endures as long as they are upon their journey.

In Turkey, Persia, Egypt, Arabia, Barbary, &c. they use no other carriage for their merchandise than Camels, which is, of all their conveyances, the most ready, and the cheapest. Merchants, and other travellers, assemble themselves in caravans, to avoid the insults and piracies of the Arabs. These caravans are often very numerous, and often composed of more Camels than men. Every one of these Camels is loaded according to his strength; and he is so sensible of it himself, that when a heavier load than usual is put upon him, he refuses it, by constantly remaining in his resting posture, till he is lightened of some of his burden.

Large and strong Camels generally carry a thousand, and even twelve *hundred* weight; the smaller only six or

seven hundred. In these commercial journeys, they do not travel quick; and as the route is often seven or eight hundred miles, they regulate their stages; they only walk, and go every day ten or twelve miles; they are disburthened every evening, and are suffered to feed at liberty. If they are in a part of the country where there is pasture, they eat enough in one hour to serve them twenty-four, and to ruminate on during the whole night; but they seldom meet with pastures, and this delicate food is not necessary for them: they even seem to prefer wormwood, thistles, nettles, furze, and other thorny vegetables, to the milder herbs; and so long as they can find plants to browse on, they very easily live without any drink. When a caravan arrives at a *wadey*, or watering place, in the desert,



it usually halts for some days. Nothing can exceed the delight with which both men and beasts reach one of these pools.

The sufferings which the Camels sometimes suffer in

the deserts of Africa may be estimated by the extracts from Denham's Travels.

road lay over loose hills of fine sand, in which the ank nearly knee deep. In passing these desert ere hills disappear in a single night by the drift-e sand, and where all traces of the passage, even e kafilâ, sometimes vanish in a few hours, the ave certain points in the dark sand stone ridg- from time to time raise their heads in the midst ry ocean of sand, and form the only variety, and they steer their course. From one of these land- e waded through sand formed into hills from o sixty feet in height, with nearly perpendicular e Camels blundering and falling with their hea-

The greatest care is taken by the drivers in ng these banks; the Arabs hang with all their n the animal's tail, by which means they stea- n their descent. Without this precaution the enerally falls forward, and, of course, all he car- over his head. We halted at Kaflorum (where a stops), which is a nest of hills of coarse, dark ie: an irregular peak to the east is called Gus- he castle. At the end of these hills, about two m the road, lies a wadey called Low Seghrir, i grows the snag tree, and also grass. Our as south; but we were obliged to wind round rent sand hills in order to avoid the rapid de- which were so distressing to the Camels. We ed under a head called Low (the Difficult), to the ere we found several wells.

sand hills were less high to-day, but the animals eep, that it was a tedious day for all. Four Cam- o Khaloom's gave in; two were killed by the d *two were left to the chance of coming up be-*

fore morning. Tremendously dreary are these marches: as far as the eye can reach, billows of sand bound the prospect. On seeing the solitary foot passenger of the *kafila*, with the water-flask in his hand, and bag of zumeeta on his head, sink at a distance beneath the slope of one of these, as he plods his way alone, hoping to gain a few paces in his long day's work, by not following the track of the Camels, one trembles for his safety: the obstacle passed which concealed him from view, the eye is strained towards the spot, in order to be assured that he has not been buried quick in the treacherous overwhelming sand."

This facility with which they abstain so long from drinking, is not pure habit, but rather an effect of their formation. Independent of the four stomachs which are commonly found in ruminating animals, the Camel is possessed of a fifth bag, which serves him as a reservoir to retain the water. This fifth stomach is peculiar to the Camel. It is of so vast a capacity, as to contain a great quantity of liquor, where it remains without corruption, or without the other aliments being able to mix with it. When the animal is pressed with thirst, or has occasion to dilute the dry food, and to macerate it for rumination, he causes a part of this water to reascend into the stomach, and even to the throat, by a simple contraction of the muscles.

This animal bears about him all the marks of slavery and pain; below the breast, upon the sternum, is a thick and large callosity, as tough as horn; the like substance appears upon the joints of the legs; and although these callosities are to be met with in every animal, yet they plainly prove that they are not natural, but produced by an excessive constraint, and pain, as appears from their being often found filled with pus. It is therefore evident, that this deformity proceeds from the custom to which these animals are constrained, of forcing them, when quite

young, to lie upon their stomach with their legs bent under them, and in that cramped posture to bear not only the weight of their body, but also the burdens with which they are laden. These poor animals must suffer a great deal, as they make lamentable cries, especially when they are overloaded; and, notwithstanding they are continually abused, they have as much spirit as docility. At the first sign they bend their legs under their bodies, and kneeling upon the ground, they are unloaded, without the trouble of lifting up the load to a great height, which must happen, were they to stand upright. As soon as they are loaded, they raise themselves up again without any assistance or support; and the conductor, mounted on one of them, precedes the whole troop, who follow him in the same pace as he leads. They have neither need of whip or spur to excite them: but, when they begin to be fatigued, their conductors support their spirits, or rather charm their weariness, by a song, or the sound of some instrument. When they want to prolong the route, or double the day's journey, they give them an hour's rest; after which, renewing their song, they again proceed on their way for many hours more; and the singing continues until the time that they stop. Then the Camels again kneel down on the earth, to be relieved from the burden, by the cords being untied, and the bales rolled down on each side. They remain in this cramped posture, with their belly couched upon the earth, and sleep in the midst of their baggage, which is tied on again the next morning with as much readiness and facility as it was untied before they went to rest. These are, however, not their only inconveniencies: they are prepared for all these evils by one still greater; by mutilating them by castration while young. They leave but one male for eight or ten females; and all the labouring Camels are commonly *gelt*: they are weaker, without

doubt, than those which are not castrated: but they are more tractable than the others, who are not only indocile but almost furious, in the rutting time, which remains forty days, and which happens every spring of the year. The female goes with young exactly a year, and, like all other large animals, produces but one at a birth. They have a great plenty of milk, which is thick, and nourishing even for the human species, if it is mixed with more than an equal quantity of water. The females seldom do any labour while they are with young, but are suffered to bring forth at liberty. The profit which arises from their produce, and from their milk, perhaps surpasses that which is got from their labour; nevertheless, in some places, a great part of the females undergo castration, as well as the males, in order to render them more fit for labour. In general, the fatter the Camels are, the more capable they are of enduring great fatigues. Their hunches appear to be formed only from the superabundance of nourishment; for, in long journeys, where they are obliged to stint them in their food, and where they suffer both hunger and thirst, these hunches gradually diminish, and are reduced almost even; and the eminences are only discovered by the height of the hair, which is always much longer upon these parts than upon any other part of the back.

The young Camel sucks its mother a year: and when they want to bring him up so as to make him strong and robust, they leave him at liberty to suck or graze for a longer time, nor begin to load him, or put him to labour, till he has attained the age of four years. The Camel commonly lives forty or fifty years.

The Camel is not only of greater value than the elephant, but perhaps not of less than the horse, the ass, and the ox, all united together. He alone carries as much as two mules; he not only also eats less, but likewise feeds

herbs as coarse as the ass. The female furnishes milk longer time than the cow ; the flesh of young Camels is good and wholesome, like veal ; their hair is finer, and more sought after than the finest wool ; there is not a part of them, even to their excrements, from which some profit is not drawn ; for sal ammoniack is made from their urine ; their dung, when dried and powdered, serves them for litter, as it does for horses, with whom they often travel in countries where neither straw nor hay is known. In Egypt, a kind of turf is also made of this dung, which burns easily, and gives a flame as clear, and almost as lively, as that of dry wood ; even this is another great use, especially in deserts, where not a tree is to be seen, and where, from the deficiency of combustible matters, fire is almost scarce as water.

The following extracts are from the "Library of Entertaining Knowledge."

"At particular seasons of the year, camel-fights are common at Smyrna and at Aleppo. Such exhibitions are the disgrace of the vulgar (be they the high or the low vulgar) in all countries ; and the lion-fights of the savage Romans, bull-fights of Spain, the bull and badger baitings and cock-fights of England, and the camel-fights of Asia Minor, are equally indications of a barbarian spirit, which can only be eradicated by knowledge and true religion. Of these, however, the camel-fights appear the least objectionable. The Camels of Smyrna are led out to a large plain, filled with eager crowds. They are muzzled, to prevent their being seriously injured, for their bite is tremendous—always bringing the piece out. A couple being let loose, they run at each other with extreme fury. Mr. MacFarlane thus describes to us this curious scene :—'One of the favorite holiday amusements of the Turks of Asia Minor is furnished by the camel-combats. An inclosure is made,

and two Camels, previously muzzled so that they cannot hurt each other much, are driven in, and incited to fight with each other. Their mode of combat is curious: they knock their heads together (laterally), twist their long necks, wrestle with their fore-legs, almost like bipeds, and seem to direct their principal attention to the throwing down of the adversary. During this combat, the Turks, deeply interested, will back, some one Camel and some the other; and they will clap their hands and cry out the names of their respective favourites, just as our amateurs do with their dogs, or as the Spaniards, at their more splendid and more bloody bull-fights, will echo the name of the hardy bull or the gallant *matador*. The Pasha of Smyrna used frequently to regale the people with these spectacles in an inclosed square before his palace; and I saw them besides, once, at a Turkish wedding at the village of Bournabah, near Smyrna, and another time on some other festive occasion, at Magnesia. I once, however, chanced to see a less innocent contest, which I have noticed in my volume of travels. This was on the plain between Mounts Sipylus and Tartalee and the town of Smyrna. It was a fight in downright earnest. Two huge rivals broke away from the string, and set to in spite of their drivers. They bit each other furiously, and it was with great difficulty the devidgis succeeded in separating these (at other times) affectionate and docile animals.' The popular amusements which the Camel affords in other parts of the East are of a less ferocious nature. At a particular season of the year, the Mahomedans in the neighbourhood of Mount Sinai have *lcamel-races*, and this festival is a time of great rejoicing.

“Avarice and ill temper will occasionally make the Arabs and Turks maltreat their Camels; though it is due to them to state that these instances are rare. The animal is usually treated with the care and kindness which his usefulness

his goodness demand. Mr. Mac Farlane says, 'I have not told that the Arabs will kiss their Camels in gratitude and affection, after a journey across the deserts. I never saw the Turks, either of Asia Minor or Roumelia, repay their kindness so far as this; but I have frequently seen them pat their Camels when the day's work was done, and talk to them on their journey, as if to cheer them. The Camels appeared to me quite as sensible to favour gentle treatment, as a good bred horse is. I have seen them curve and twist their long lithe necks as their master approached, and often put down their tranquil heads towards his shoulder.'

Again, he says, 'Near Smyrna, and at Magnesia and elsewhere, I have occasionally seen a Camel follow his master like a pet dog, and go down on his knees before him, offering inviting him to mount. I never saw a Turk ill use a useful, gentle, amiable quadruped. But I have frequently seen him give it a portion of his own dinner, when, in unfavourable places, it had nothing but chopped straw for meat. I have sometimes seen the devidjis on a hot day, in passing a dry district, spirt a little water in the Camels' nostrils; they pretend it refreshes them.'

'Purchas, who, two centuries ago, collected the most interesting accounts of European travellers, in a voluminous work which he called his 'Pilgrimage,' thus describes the Camels of Africa:—

“Of Camels they have three sorts: the first called Hinn, of huge stature and strength, able to carry a thousand pound weight; the second less, with two bunches on back, fit for carriage and to ride on, called Becheti, of which they have only in Asia. The third sort, called Raddiel, is meagre and small, able to travel (for they are used to burthens) above an hundred miles in a day. And the king of Tombutoo can send messengers on such

Camels to Segelmesse or Darha, nine hundred miles distant, in seven or eight days, without stay or change by the way.' This is a statement which we might conceive to be exaggerated, if we were to assume the speed and endurance of the horse as points of comparison. But the creatures are essentially different; and the relation of the old geographer is borne out by unimpeachable testimony. The Ragualiel of Purchas is the Heirie, or Maherry, of the Desert. Its swiftness is thus described in the figurative language of the Arabs: 'When thou shalt meet a heirie, and say to the rider, Salem Alick, ere he shall have answered the Alick Salem, he will be afar off, and nearly out of sight, for his swiftness is like the wind.' Mr. Jackson, in his account of the Empire of Marocco, states that the fastest breed of the swift dromedary, which is called a 'Sebayee,' will perform a journey of thirty-five days caravan travelling, in five days. The mean daily rate of the heavy caravan, according to Rennell, is about eighteen miles; and thus it appears, from Mr. Jackson's statement, that the heirie will perform six hundred and thirty miles in five days—an almost incredible effort of speed and perseverance. Captain Lyon says that the maherry, of the Northern African Arabs, will continue at a long trot of nine miles an hour, for many hours together. Riley often travelled at the rate of seven or eight miles an hour, for nine and ten hours a day. He and his companions were mounted upon the dromedaries, without a saddle, and they were half naked. Their sufferings were great; for the creatures, he says, 'took very long steps, and their motions being heavy, our legs, unsupported by stirrups or any thing else, would fly backwards and forwards, chafing across their hard ribs at every step.' These dromedaries travelled in companies, and, therefore, their speed was naturally not so great as that of a single one with a courier. Mr. Jackson

a romantic story of a swift dromedary, whose natural speed was accelerated in an extraordinary manner by the enthusiasm of his rider: 'Talking with an Arab of Suse, the subject of these fleet Camels, and the desert horse, assured me that he knew a young man who was passionately fond of a lovely girl, whom nothing would satisfy but oranges; these were not to be procured at Mogadore, and, as the lady wanted the best fruit, nothing less than Marocco oranges would satisfy her. The Arab mounted his heirie at dawn of day, went to Marocco (about one hundred miles from Mogadore), purchased the oranges, and returned that night after the gates were shut, but sent oranges to the lady by a guard of one of the batteries.' His excited feelings carried forward the Arab lover; and the length of an African day favoured his enterprise. He did not suffer like poor Riley, who, when his naked legs were chafing the Camel's ribs for many hours, says, with all pathos, 'it seemed to me as though the sun would never go down.' The ugly and swift Camel, Alboufaki, is a conspicuous figure in the singular romance of Vathek. The wandering Arab and his maherry, have an extraordinary appearance, which Captain Lyon has described: 'The rider is placed on the withers, and confined by a band under the belly. It is very small, and difficult to sit, which is done by balancing with the feet against the neck of the animal, and holding a tight rein to steady the hand.' 'The first experiment which an European makes in mounting a dromedary is generally a service of some little danger, from the peculiarity of the animal's movement in riding. Denon has described this with his usual vivacity. During the French invasion of Egypt, a part of Dessaix's mission, to which the scientific traveller was attached, was to travel with Camels to a distant post across the desert. 'The *de-selle* (the mounting at a signal) was very amusing.

The Camel, slow as he generally is in his actions, lifts up his hind-legs very briskly at the instant his rider is in the saddle; the man is thus thrown forward: a similar movement of the fore-legs throws him backward. Each motion is repeated; and it is not till the fourth movement when the Camel is fairly on his feet, that the rider can recover his balance. None of us could resist the first impulse; and thus nobody could laugh at his companions. Mr. Mac Farlane tells us, in his letter, that upon his first Camel adventure, he was so unprepared for the probable effect of the creature's rising behind, that he was thrown over his head, to the infinite amusement of the Turks, who were laughing at his inexperience. His description of this experiment is as lively as that of Denon:—'I was acquainted with this peculiarity of animal movement in a striking manner, the first time I mounted a Camel out of curiosity. I ought to have known better—and, indeed I did know better; but when he was about to rise, from old habits associated with the horse, I expected he would throw out his fore legs, and I threw myself forward accordingly—when up sprung his hind-legs, and clean I went over his ears, to the great amusement of the devdjis.'

"Riley tells a somewhat similar story of the effect of the rough movement of a large Camel:—'They placed me on the largest Camel I had yet seen, which was nine or ten feet in height. The Camels were now all kneeling or lying down, and mine among the rest. I thought I had taken a good hold, to steady myself while he was rising yet his motion was so heavy, and my strength so far exhausted, that I could not possibly hold on, and tumbled off over his tail, turning entirely over. I came down upon my feet, which prevented my receiving any material injury, though the shock to my frame was very severe. The

owner of the Camel helped me up, and asked me if I was injured: I told him, no. "God be praised!" said he, "for turning you over: had you fallen upon your head, these bones must have dashed out your brains. But the Camel," added he, "is a sacred animal, and Heaven protects those who ride on him! Had you fallen from an ass, though he is only two cubits and a half high, it would have killed you; for the ass is not so noble a creature as the Camel and the horse." I afterwards found this to be the prevailing opinion among all classes of the Moors and the Arabs. When they put me on again, two of the men steadied me by the legs, until the Camel was fairly up, and then told me to be careful, and to hold on fast: they also took great care to assist my companions in the same way.'

"Every preparation for a long journey being completed, the dromedaries and horses having their riders on their backs, and the Camels having received their bales of goods and their water-skins,—the caravan sets forward on its march. In Asia, an ass, bearing a tinkling bell, usually walks at the head, and the Camels follow, one by one. Mr. Mac Farlane thus describes this arrangement, as well as their measured pace:—'The caravans, or strings of Camels, are always headed by a little ass, on which the driver sometimes rides. The ass has a tinkling bell round his neck; and each Camel is *commonly* furnished with a large rude bell, that produces, however, a soft and pastoral sound, suspended, not to the neck, but to the front of the pack, or saddle. As I have observed of the mules in Spain and Italy, they will all come to a dead stop, if these bells be removed by accident or design; and like the mules also, they always go best in a long single line, one after the other. We tried the experiment of the bell at Pergamos. Two stately Camels, the foremost furnished with the bell, were trudging along the road with *measured* steps: we detached the

bell with a long stick; they halted as the sounds ceased, nor could we urge them forward until their ears were cheered with the wonted music. I have used the word *measured*, not as matter of poetry, but of fact. Their step is so *measured* and like clock-work, that on a plain you know almost to a yard the distance they will go in a given time. In the flat valleys of the Hermus and Caicus, I have made calculations with a watch in my hand; and have found, hour after hour, an unvarying result, the end of their journey being just at the same pace as the beginning: their pace is three miles an hour.' He adds: 'I may remark as curious, that the devidjis always preserve the same order of distribution, or, as we might say in military language, "dress the line," in the same manner. Thus one Camel always goes first, another second, another third, and so on; and if this order is interfered with, the beasts will become disorderly, and will not march. Each gets attached to a particular Camel of the caravan; prefers seeing his tail before him to that of any other; and will not go if you displace his friend.' 'We met caravans of Camels,' says Dr. Clarke, speaking of Cyprus, 'marching according to the order always observed in the East; that is to say, in a line, one after the other; the whole caravan being preceded by an ass, with a bell about his neck.' Burckhardt gives the reason for the Camels thus travelling in a single file:— 'The Souakin caravans, like those of the Hedjaz, are accustomed to travel in one long file: the Egyptians, on the contrary, march with a wide extended front; but the former method is preferable, because if any of the loads get out of order, they can be adjusted by leading the Camel out of the line, before those behind have come up; in the latter case, the whole caravan must stop when any accident happens to a single Camel. The caravans from Bagdad to Aleppo and Damascus, consisting sometimes of two

usand Camels, marching abreast of each other, extend
 er a space of more than a mile.' The individual Cam-
 , which march in a line, invariably follow the steps of
 one which precedes them; and thus they are often led
 ong, if the drivers are negligent. They are sometimes
 d, the one to the tail of the other, like strings of horses
 England. Burckhardt, in his journey from Mecca to
 dina, says, 'the Arab riding foremost was to lead the
 op; but he frequently fell asleep, as well as his com-
 nions behind, and his Camel then took its own course,
 d often led the whole caravan astray.' In the deserts,
 requires especial vigilance and extraordinary local know-
 lge in the drivers, to keep the right direction. The com-
 is sometimes used; but, generally, the camel-drivers
 ertain their course by some marks known only to them-
 ves,—some sand-bank, or prickly shrubs, which only
 ir experienced eye can distinguish from similar objects.
 very spot in the plains of Arabia is known by a particular
 me; and it requires the eyes and experience of a Bedou-
 to distinguish one small district from another. For this
 pose, the different species of shrubs and pasturage pro-
 ced in them by the rains are of great assistance; and
 enever they wish to mention a certain spot to their com-
 nions, which happens to have no name, they always des-
 ate it by the 'herbs that grow there.' The Camels of
 e caravan are wholly dependent upon those which pre-
 de them for the regularity of their pace, or for their halt-
 s; and they therefore are completely under the direction
 the leader, whether the man or the beast assume that
 ice. Even a rider can never stop his dromedary, while
 companions are moving on; and thus it is a point of ex-
 llence in a traveller, with which the Arabs are highly
 ased, to jump off and remount without stopping his beast.
 e leading Camel, however, requires to be excited by

its rider; and if it is not urged on by hearing the h voice, it gradually slackens its pace, and at last stands to rest. If the leading Camel once stops, all the rest do the same. Burckhardt, in his journey through Arabia, walked ahead of the caravan: he sometimes had to wait a long time for its coming up, and having retraced his steps, would find the Camels standing still, and ever upon them fast asleep. It is indifferent to these postures where they stop; for they are regardless of heat and will remain quietly exposed to the hottest beams of the sun. As long as the voice of the driver is heard, the Camel does not heed what situation he is in. Col. Lyon saw a blind camel-driver, who held by the animal's tail, and was in the habit, with this assistance, of leading it constantly over an uneven and dangerously steep road. Whatever be the nature of the road they toil over, they plod steadily on.

“The expense of maintaining these valuable creatures is remarkably little: a cake of barley, a few dates, and a handful of beans, will suffice, in addition to the hard and dry shrubs which they find in every district but the wildest of the desert. They are particularly fond of vegetable productions which other animals would not touch, such as plants which are like spears and daggers in comparison with the needles of the thistle, and which even pierce the incautious traveller's boot. He might wish such thorns eradicated from the earth, if he did not see the Camel contentedly browsing upon them; for he learns that Providence has made nothing in vain, and that the sant-tree is amongst these substances, and in this thistle the camel especially delights.

“Mr. Parsons, who saw the pilgrim caravan set out from Cairo about forty years ago, has given a programme of the procession, drawn up with all the precision of a

occupies ten pages of his quarto work. The was six hours in passing him. The most striking to an European must have been the Camy variety of splendid trappings, laden with provisions, and cookery apparatus, and water-skins, and artillery, and holy Sheiks, and Mamelukes. were Camels 'with two brass field-pieces each' with bells and streamers.—others 'with mettle-drums'—others 'covered with purple velvet' when walking by their sides, playing on flutes and—others 'handsomely ornamented about their r bridles being studded with silver, intermixed beads of all colours, and ostrich feathers on their—and last of all 'the sacred Camel, an extraor-e Camel, with a fine bridle studded with jewels and led by two holy sheiks, in green, a square hapel on his back.' In addition to these Camel there were horses with every variety of com-namelukes, and pikemen, and janissaries, and the Emir Hadgy, (commander of the pilgrimage) 'satin—to say nothing of numberless 'buffoons and pranks.' Mr. Parsons sums up the splendour of the caravan by declaring that 'it is by much the more magnificent than the spectacle of the Lord Mayor and his retinue going in procession through the City of London. But this may be doubted by some as the exaggeration of a traveller, while others may deem it impos-

ing from the usual practice of commercial caravan-pilgrimage is performed chiefly by night. The caravan generally moves about four o'clock in the afternoon and travels without stopping till an hour or two after dark. A large supply of torches is carried from Cairo, and used during the hours of darkness. The Bedou-

ins, who convey provisions for the troops, travel only, and in advance of the caravan. The watering-places on the route are regularly established. Each is supplied with a large tank, and protected by soldiers within a castle by the well, throughout the year. On the route the wells are frequent, and the water good on others three days of the journey frequently between one watering-place and another,—and the water is often brackish. When the Cairo caravan is completely assembled; and the formalities which we have described are gone through, the great body of pilgrims begin to move, the stations of the different parties being assigned, according to their provinces and towns, being rigidly observed throughout the march. The order is determined by the geographical proximity of each place from which each party comes. At Adjeroud, the Egyptian caravan halts on the second day's march, and is supplied with water from Suez; and here it rests for a day and a night, to prepare for a forced march of three and two nights, through a region where there is no water in the desert of El Tyh, which nearly extends from the mouth of one gulf of the Red Sea to the other—that is, from Akaba to Akaba. The Hadj route is circuitous. It is a journey of great privations both of men and quadrupeds composed. The splendid trappings of the Camels, their velvet saddles, their bells, have lost their attraction; but their endurance becomes the safety of the pilgrims; a richly caparisoned horse, impatient of thirst, and easily subdued by fatigue, is more frequently a burden than an advantage. The route of the caravan, after it passes the Akaba, lies by the shore of the Red Sea for nearly six hundred miles; and, therefore, cannot properly be said at any time after the first march to be upon the desert, as the Syrian caravan

ty days. But its difficulties are more numerous; and to pass regions quite as arid and inhospitable. A part of Arabia is covered with sandy plains; and when the mountain steeps are crossed, the long extended ways rarely offer water. The Arabic language is rich in words expressing every variety of desert, differing from each other by very slight shades of meaning: thus, they have terms descriptive of a plain—a plain in the mountain—a plain covered with herbs—a naked sandy desert—a desert—a desert with little spots of pasturage—a desert without water. Although the caravan route from Medina to Mecca presents, with the exception of the desert proper, none of those enormous wastes, like the Great Eastern Deserts of Arabia, 'where the Arabs have only the moon and the stars to direct their way;' nor is, like the Arabian desert, 'a sea without waters, an earth without fertility, disdaining to hold a foot-print as a testimony of creation,' there are many tracts, as well as the desert from Medina to Akaba, in the forty days' journey, which offer to the pilgrim abundance of fatigue and suffering. If water fail, it sometimes does, even at the wells at particular dry seasons—if the water-skins evaporate more quickly than is ordinarily the case—the Camel's power of endurance is severely tried—for his wants are the last attended to. It is only the pilgrims if the rain of the mountains have filled the banks of some little river. Even the much-enduring Camels, at the sight of water, after many days' abstinence, break the halters by which they are led, and rush forward stumbling down the banks, throw off their loads, and occasion infinite disorder. Mr. Buckingham has, however, described a scene, in which the patience of the Camel is trusted in a remarkable way with the eagerness of the pilgrim:—

'It was near midnight when we reached a marshy

ground, in which a clear stream was flowing along, the beds of tall and thick rushes, but so hidden by them that the noise of its flow was heard long before the stream itself could be seen. From the length of the march and the exhausting heat of the atmosphere, even at night the horses were exceedingly thirsty : their impatient restlessness, evinced by their tramping, neighing, and eagerness to rush all to one particular point, gave us the first indications of our approach to water, which was perceptible to their stronger scent long before it was heard by us. On reaching the brink of this stream, which purpose we had been forcibly turned aside by the ungovernable fury of the animals, to the southward route, the banks were found to be so high above the level of the water, that the horses could not reach it to drink. Some, more impatient than the rest, plunged themselves and their riders at once into the current ; and, after being swimming to a less elevated part of the bank over which they could mount, were extricated with considerable difficulty ; while two of the horses of the caravan, which were more heavily laden than the others, by carrying their baggage as well as the persons of their riders, were drowned. The stream was narrow but deep, and had a soft muddy bottom, in which another of the horses became so stuck, that he was suffocated in a few minutes. The rest of the caravan marched patiently along the edge of the bank, as those persons of the caravan who were provided with skins and other vessels containing small supplies could dip up the water from the brook, followed the example of the impatient horses, and plunged at once into the stream. This scene, which, amidst the obscurity of the night

of the animals, the shouting and quarrelling of the le, and the indistinct, and perhaps exaggerated apprehensions of danger, from a totally unexpected cause, had need an almost awful character, lasted for upwards of our.'

Burckhardt relates an interesting story, which beautifully illustrates the surprising instinct of the Camel. It is told to him by a man who had himself suffered all the pangs of death :—

In the month of August, a small caravan prepared to set out from Berber to Daraou. They consisted of five merchants and about thirty slaves, with a proportionate number of Camels. Afraid of the robber Naym, who at that time was in the habit of waylaying travellers about the borders of Nedjeym, and who had constant intelligence of the departure of every caravan from Berber, they determined to take a more eastern road, by the well Owareyk. They had an Ababde guide, who conducted them in safety to the place, but who lost his way from thence northward, the road being very unfrequented. After five days' march in the mountains their stock of water was exhausted, nor did they know where they were. They resolved, therefore, to alter their course toward the setting sun, hoping thus to reach the Nile. After two days' thirst, fifteen slaves and two of the merchants died ; another of them, an Ababde, who had ten Camels with him, thinking that the Camels would know better than their masters where water was to be found, desired his comrades to tie him fast upon the saddle of his strongest Camel, that he might not fall down from weakness ; and thus he parted from them, permitting his fellows to take their own way : but neither the man nor his Camel were ever heard of afterwards. On the eighth day after leaving Owareyk, the survivors came in sight of the mountains of Shigre, which they immediately recognized ;

but their strength was quite exhausted, and neither men nor beasts were able to move any farther. Lying under a rock, they sent two of their servants, with the strongest remaining Camels in search of water. These two men could not reach the mountain, one dropped off his Camel deprived of speech, and unable to move his hands to his comrade as a signal that he was to be left to his fate. The survivor then continued his route; but such was the effect of thirst upon him that his eyes grew dim, and he lost the road, though he had travelled over it before, and had been perfectly acquainted with it. Having wandered about for a long time, he alighted under the shade of a tree, and tied the Camel to one of its branches; the beast, however, smelt the bait (as the Arabs express it), and, wearied as it was by its halter, and set off galloping furiously in the direction of the spring, which, as it afterwards appeared, was at an hour's distance. The man well understanding the Camel's action, endeavoured to follow its footsteps, but could only move a few yards; he fell exhausted on the ground and was about to breathe his last, when Providence intervened, from a neighbouring encampment, Bisharye, who, by throwing water upon the man's face, restored him to his senses. They then went hastily together to the water, filled the skins, and returning to the camp, found the good fortune to find the sufferers still alive. Bisharye received a slave for his trouble. My informant of Yembo, in Arabia, was the man whose Camel discovered the spring; and he added the remarkable circumstance, that the youngest slaves bore the thirst better than the rest, and that, while the grown up boys all died, the children reached Egypt in safety.'"

THE BUFFALO, THE AUROCHS, THE BISON, AND THE ZEBU.

THOUGH the Buffalo is, at this present time, common in Greece, and tame in Italy, it is neither known by the Greeks or Romans; for it never had a name in the language of those people. The word *buffalo* even indicates a strange origin, not to be derived either from the Greek or Latin languages. In effect, this animal is originally a native of the eastern countries of Africa and India, and was not transported and naturalized in Italy till towards the seventh century. It is true, the ancients have spoken of an animal, as of a different species from the ox, under the name *onchialus*; and Aristotle has mentioned the wild ox of Persia, which he has called *bonasus*. Both the ancients and moderns, however, have multiplied the species unnecessarily; and from attentive observation, I am clearly of opinion, that there are but two species which are essentially different, viz. the ox and the Buffalo.

We may observe, throughout the different regions of the world, the breed of oxen differing from each other in external appearances, according to the nature of the climate, or other circumstances; but the most remarkable difference is that which divides them into two classes, viz. *Aurochs*, or ox without a hunch on its back, and the *hunched*, or hunched ox. From indubitable facts, however, we have the utmost reason to conclude, that these are no more than varieties of the same species. The hunch, the length and quality of the hair, and the form of the horns, are the sole characters by which the Bison is distinguished from the Aurochs; but the hunched oxen couple and breed with the European oxen; and we likewise know, that the length and quality of the hair, in all animals, depends on the nature of the climate; and we have remark-

ed, that, in oxen, goats, and sheep, the form of the is various and fluctuating. These differences, though they do not suffice to establish two distinct species; and the tame ox of Europe couples with the hunched ox of India, we have the greatest reason to think that it would couple with the Bison, or hunched ox of Europe withstanding this, however, we are not to be so sure that the two kinds have not melted or coalesced into a mongrel breed, since many circumstances may have been contrived to keep them asunder; and, in fact, we find that these kinds have subsisted till this present time either in a free and wild, or in a tame state; and either increased, or rather have been transported into all the parts of the earth. All the tame oxen without hunch proceeded from the Aurochs, and all with hunch from the issues of the Bison. In order to give a just idea of the varieties, we shall make a short enumeration of the animals, such as they are found actually to be in different parts of the earth.

To begin with the north of Europe, the few oxen which subsist in Iceland are without horns, and they are of the same kind as our oxen. The size of the animals is rather relative to the plenty and quality of the pasture, than to the nature of the climate. The Danes often brought lean cows from Denmark, which fattened prodigiously in their meadows, and which give plenty of milk. These Danish cows are longer than ours. The cows of Ukraine, where there is excellent pasture, are said to be the largest in Europe; they are also of the same kind as our oxen.

The breed of Aurochs, or ox without a hunch, is confined to the cold and temperate zones. It is not very much dispersed towards the southern countries: on the contrary, the breed of the Bison, or hunched ox, fills all the

provinces, at this present time. In the whole continent of India; the islands of the South Seas; in all Africa from Mount Atlas to the Cape of Good Hope, we may say, nothing but hunched oxen; and it even appears, that this breed, which has prevailed in all the hot countries, has many advantages over the others. These hunched oxen, like the Bison, of which they are the issue, have the hair much softer and more glossy than our oxen, like the Aurochs, are furnished but with little hair, which is of a harsh nature. These hunched oxen are al-
 rifter, and more proper to supply the place of a horse; at the same time that they have a less brutal nature, and are not so clumsy and stupid as our oxen, they are more docile, and sensible in which way you would lead them. The regard the Indians have for these animals is so great, that they have almost degenerated into superstition. The ox, the most useful animal, has appeared to them the most worthy of being revered; for this purpose, they have made an idol of the object of their veneration, a kind of efficient and powerful divinity; for we are desirous of offering all we respect, great, and capable of doing much good, or much harm.

These hunched oxen, perhaps, vary again more than in the colours of the hair, and the figure of the horns. The handsomest are all white, like the oxen of Lombardy; there are also some that are without horns; there are others who have them very much elevated, and others so bent, that they are almost pendent; it even appears, that we must divide this first kind of Bisons, or hunched oxen, into two secondary kinds; the one very large, and the other very small; and this last is that of the ZEBU; both with soft hair, and a hunch on the back. This hunch does not depend on the conformation of the spine, nor on the shape of the shoulder; it is nothing but an excrescence, a

kind of wen, a piece of tender flesh, as good to eat as the tongue of an ox. The wens of some oxen weigh about forty or fifty pounds; others have them much smaller; some of these oxen have also prodigious horns for their size: there is one in the French King's cabinet, which is three feet and a half in length, and seven inches in diameter at the base. Many travellers affirm, they have seen them of a capacity sufficient to contain fifteen and even twenty pints of water.

Thus all the southern parts of Africa and Asia are inhabited with hunched oxen, or Bisons, among which a great variety is to be met with in respect to size, colour, shape of the horns, &c. On the contrary, all the northern countries of these two parts of the world, and Europe entirely, comprehending even the adjacent islands, to the Azores, are only inhabited by oxen without a hunch, who derive their origin from the Aurochs. The Bison, or hunched ox, is stronger and much larger than the tame ox of India; it is also sometimes smaller; but that depends only on the quantity of food. At Malabar, at Abyssinia, at Madagascar, where the meadows are naturally spacious and fertile, the Bisons are all of prodigious size. In Africa and Arabia Petræa, where the land is dry, the Zebu, or Bisons, are of the smallest stature.

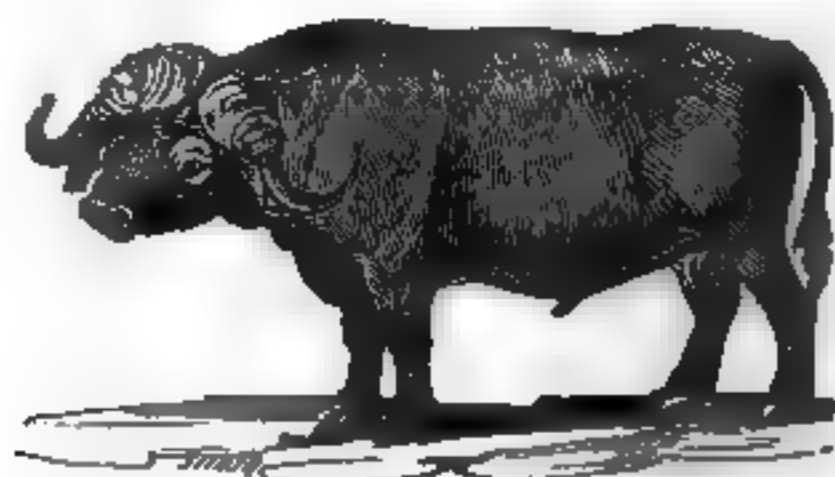
Every part of South America is inhabited by oxen without hunches, which the Spaniards, and other Europeans have successfully transported. These oxen are multiplied and are only become smaller in these countries. In the northern parts, as far as Florida, Louisiana, and even as far as Mexico, the Bisons, or hunched oxen, are to be found in great numbers. These Bisons, which formerly inhabited the woods of Germany, Scotland, and other of our northern countries, have probably passed from one continent to the other, and are become, like other animals,

er in this new world; and as they are habituated to climates more or less cold, they have preserved their hair more or less warm; their hair is longer and thicker; the beard is longer at Hudson's Bay than at Mexico; and, in general, this hair is softer than the finest wool.

Thus the wild and the tame ox, the European, the Asian, the American, and the African ox, the Bonasus, the Aurochs, the Bison, and the Zebu, are all animals of one and the same species, who, according to the climates, food, and different usage they have met with, have undergone all the variations we have before explained. The ox, as the most useful animal, is also the most universally dispersed. It appears ancient in every climate, tame among civilized nations, and wild in desert or unpolished countries; he supports himself by his own strength when in a state of distress, and has never lost the qualities which are useful to the service of man. The young wild calves which are taken from their mothers in India and Africa, have, in a short time, become as tractable as those which are the issue of the tame kind; and this natural conformity is another striking proof of the identity of the species.

It may be asked, which of the two kinds, the Aurochs or the Bison, claims the first place? It appears to me, that a satisfactory answer may be drawn from the facts we have laid down. The hunch or wen of the Bison is probably no other than an accidental character, which is defaced or lost in the mixture of the two kinds. The Auroch, or without a hunch, then, is the most powerful and pre-eminent of the two; for, if it was the contrary, the hunch, instead of disappearing, would extend and remain upon one of this mixed breed. What confirms and establishes still more the identity of the species of Bison and Aurochs, is, that the Bisons, or hunch-backed oxen, in the north of America, have so strong a smell, that they have

been called *Musk Oxen* by the greatest number of travellers;* and, at the same time, we find, by the account observing people, that the *Aurochs*, or wild ox of Prussia and Livonia, has the smell of musk, like the *Bear* America.



There remain, therefore, but two species, the *Burn* and the *Ox*, out of all the names placed at the head of this section; to each of which the ancient and modern naturalists have given a separate and distinct species. These animals, although greatly resembling each other, both in appearance and often living under the same roof, and fed in the same meadows, yet, when brought together, and even excited by their keepers, have ever refused to unite and couple together; their nature is more distant than that of the mare from the horse; there even appears to be a strong antipathy between them; for it is affirmed, that cows will suckle the young Buffaloes; and the female Buffaloes receive the same kindness to the other's calves. The *Buffalo* is of a more obstinate nature, and less tractable than the *ox*; he obeys with great reluctance, and his temper is more coarse and brutal; like the *hog*, he is one of the thickest of the tame animals, as he shows by his unwilling-

* Buffon has confounded two distinct animals, the *American Buffalo* and *Musk Ox*, both of which animals we shall mention hereafter.

to be cleaned and dressed ; his figure is very clumsy, forbidding ; his looks stupidly wild ; he carries his head in an ignoble manner, and his head in a very bad position almost always inclined towards the ground ; his voice is a hideous bellowing, with a tone much stronger and hoarse than that of the bull ; his legs are thin, his ears are large, and his physiognomy dark, like his hair and skin. He differs externally from the ox, chiefly in the colour of his hide ; and this is easily perceived under the hair, with which he is but sparingly furnished ; his body is likewise more slender and shorter than that of the ox ; his legs are longer, but proportionably much less ; the horns not so round, but more pointed and partly compressed, with a tuft of hair frizzled on his forehead ; his hide is likewise thicker and harder than that of the ox ; his flesh is black and hard, and not so agreeable to the taste, but to the smell ; the milk of the female is not so good as that of the cow ; nevertheless he yields a greater quantity. In the hot countries of the eastern continent, almost all the cheese is made of his milk. The flesh of the young Buffaloes, though good during the suckling time, is not good. The hide is of more value than all the rest of the beast, whose hide is the only part that is fit to eat. This hide is firm, and almost impenetrable. As these animals, in general, are larger and stronger than the oxen, they are very capable in the plough ; they draw well, but do not require great burdens ; they are led by the means of a ring passed through their nose. Two Buffaloes, harnessed, or rather yoked, to a wagon, will draw as much as four strong oxen. As they carry their tails and their heads naturally downwards, they employ the whole force of their necks in drawing ; and this heavy mass greatly surpasses the strength of a horse or a labouring ox.

The form and thickness of the Buffalo alone are suffi-

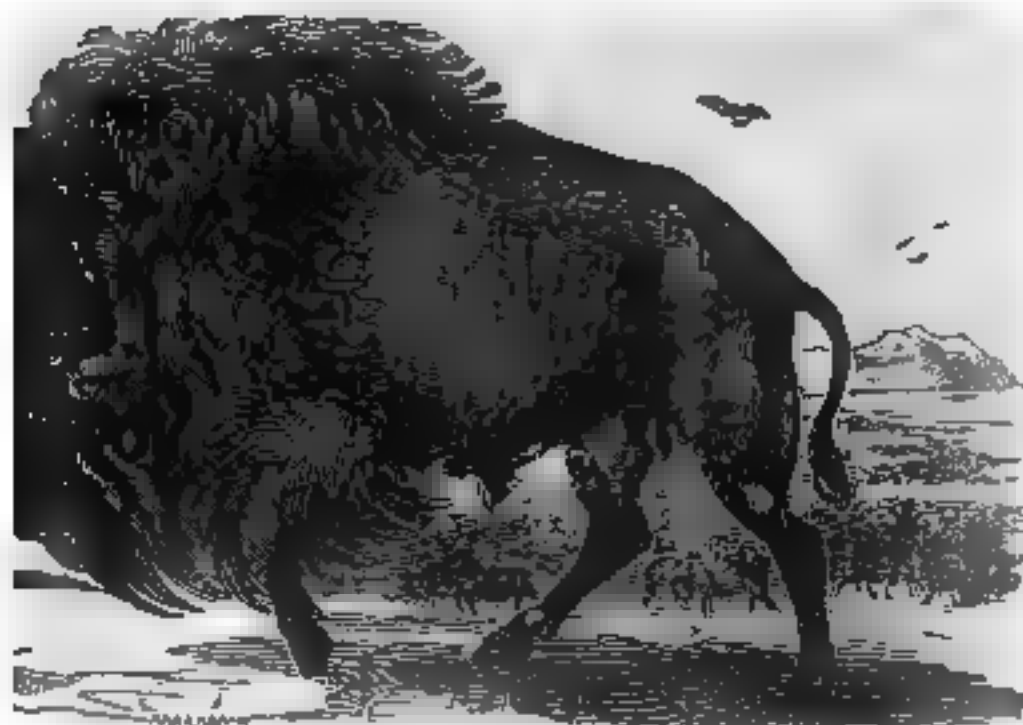
cient to indicate that he is a native of the hottest countries. The largest quadrupeds belong to the torrid zone in the Old Continent; and the Buffalo, for his size and thickness, ought to be classed with the elephant, the rhinoceros, and the hippopotamus. The camel is more elevated, but slenderer, and is also an inhabitant of the southern countries of Africa and Asia: nevertheless, the Buffaloes live and multiply in Italy, in France, and in other temperate provinces. Those that are in the French king's menagerie have brought forth two or three times. The female has but one at a time, and goes about twelve months; which is another proof of the difference between this species and that of the cow, who only goes nine months. It appears also that these animals are gentler and less brutal in their native country; and the hotter the climate is, the more tractable is their nature. In Egypt they are more so than in Italy; and in India they are more so than in Egypt. Those of Italy have also more hair than those of Egypt, and those of Egypt more than those of India. Their coat is never entirely covered, because they are natives of hot countries; and, in general, large animals of this climate have either no hair, or else very little.

There are a great number of wild Buffaloes in the countries of Africa and India, which are watered with many rivers, and furnished with large meadows. These wild Buffaloes go in droves, and make great havoc in cultivated lands; but they never attack the human species, and will not run at them, unless they are wounded, when they are very dangerous; for they make directly at their enemy, throw him down, and trample him to death under their feet; nevertheless, they are greatly terrified at the sight of fire, and are displeased at a red colour.

The Buffalo, like all other animals of southern climates,

of bathing, and even of remaining in the water; he swims very well, and boldly traverses the most rapid floods. His legs are longer than those of the ox, he runs also very fast upon land. The Negroes in Guinea, and the Indians in Malabar, where the wild Buffaloes are very numerous, hunt them. They neither pursue them nor attack them openly, but, climbing up the trees, or hiding themselves in the woods, they wait for them and kill them, the Buffaloes not being able, without much trouble, to enter these forests, on account of the thickness of their fur and the impediment of their horns, which are apt to get entangled in the branches of the trees. These people eat a great deal of the flesh of the Buffalo, and gain great profit from selling their hides and their horns, which are harder than those of the ox.

AMERICAN BISON.



At the period when the Europeans began to make settlements in North America, this animal was occasionally found on the Atlantic coast; but even then it appears to have been rare to the eastward of the Appalachian

Mountains; for Lawson has thought it to be a fact recording, that two were killed in one season on Fear River. As early as the first discovery of Canada was unknown in that country. Theodat, whose history of Canada was published in 1636, merely says that he was informed that bulls existed in the remote western countries. Warden mentions that at no very distant time herds of them existed in the western parts of Pennsylvania and that as late as the year 1766 they were pretty numerous in Kentucky; but they have gradually retired before the white population, and are now, he says, rarely found to the south of the Ohio, or on the east side of the Mississippi. They still exist, however, in vast numbers in the West, roaming in countless herds over the prairies and watersheds by the Arkansa, La Plata, Missouri, and other branches of the Saskatchewan and Peace rivers. Slave Lake, in latitude 60° , was at one time the northern boundary of their range; but of late years according to the testimony of the natives, they have taken possession of the flat limestone district of Slave Point, on the north side of that lake, and have wandered to the vicinity of Great Marten Lake, in latitude 63° , or 64° . As far as I have been able to ascertain, the limestone and sandstone formations, lying between the great Rocky Mountains and the lower eastern chain of primitive rocks, are the principal districts in the fur countries that are frequented by the Bison. In these comparatively level tracts, there is much prairie land, on which they find good grass in summer and also, many marshes overgrown with bulrush and carices, which supply them with winter food. Salt springs and lakes also abound on the confines of the limestone districts; there are several well known salt licks, where Bison are sure to be found at all seasons of the year. They do not frequent any of the districts formed of primitive

and the limits of the range to the eastward, within the Hudson's Bay Company's territories, may be nearly correct—drawn on the map by a line commencing in longitude 100° on the Red River, which flows into the south end of Lake Winnipeg, crossing the Saskatchewan to the westward of Basquiaw hill, and running from thence by the thapescow to the east end of Great Slave Lake. Their migrations to the westward were formerly limited by the Rocky Mountain range, and they are still unknown in new Alledonia, and on the shores of the Pacific to the north of the Columbia River; but of late years they have found out passage across the mountains near the sources of the Saskatchewan, and their numbers to the westward are said to be annually increasing. In 1806, when Lewis and Clark crossed the mountains at the head of the Missouri, their skins were an important article of traffic, between the inhabitants on the east side, and the natives to the westward. Further to the southward, in New Mexico and California, the Bison appears to be numerous on both sides of the Rocky Mountain chain. One of the earliest accounts we have of the animal is by Hernandez, and Reechus' edition of his observations is illustrated by an engraving which seems to have been made from a rude sketch of the Bison, altered by the European artist to a closer resemblance with the European ox. Hennepin, in his narrative of his discovery of Louisiana, gives a very good description of the Bison, together with a figure, which is apparently a copy of that of Reechus. It does not appear to have excited much attention in Europe until 1845, when several specimens were exhibited in England, under the attractive title of *Bonnasus*, which though described by the ancients, was asserted to have been lost to the moderns, until recognized in the American animal. The American *Bison* has in fact much resemblance to the

Aurochs of the Germans identified by Cuvier with *assus* of Aristotle, the *Bison* of Pausanias and Pl the *urus* of Cæsar, and which, down to the reign of magne, was not rare in Germany, but is now confined to the hilly country lying between the Cas Black Sea.

The Bisons wander constantly from place to place from being disturbed by hunters, or in quest of food are much attracted by the soft tender grass, which up after a fire has spread over the prairie. In winter scrape away the snow with their feet, to reach the The bulls and cows live in separate herds for the part of the year ; but at all seasons, one or two bulls rally accompany a large herd of cows. The Bison general a shy animal, and takes to flight instantly on seeing an enemy, which the acuteness of its sense enables it to do from a great distance. They are wary when they are assembled together in numbers, then often blindly follow their leaders, regardless of trampling down the hunters posted in their way. It is dangerous for the hunter to show himself after a wounded one, for it will pursue him, and although it may be heavy and awkward, it will have no difficulty in overtaking the fleetest runner. While I resided at Fort Union House, an accident of this kind occurred. John Mac Donald, one of the Hudson's Bay Company clerks, was descending the Saskatchewan in a boat one evening, having pitched his tent for the night. He went out in the dusk to look for game. It had nearly dark when he fired at a Bison-bull, which was galloping over a small eminence, and as he was hastening forward to see if his shot had taken effect, the wounded animal made a rush at him. He had the presence of mind to seize the animal by the long hair on its forehead.

k him on the side with its horn ; and being a remarkable and powerful man, a struggle ensued, which continued until his wrist was severely sprained, and his arm rendered powerless ; he then fell, and after receiving three blows, became senseless. Shortly after, he was found by his companions bathed in blood, being gored in several places ; and the Bison was couched beside him, apparently waiting to renew the attack, had he shown any signs of life. Mr. Mc Donald recovered from the immediate effects of the wounds he had received, but died a few months afterwards.

any other instances might be mentioned of the tenacity with which this animal pursues his revenge ; and we have been told of a hunter having been detained for many days in a tree by an old bull, which had taken its post beneath to watch him. When it contends with a dog, it strikes violently with its fore feet, and in that way, proves more than a match for an English bull-dog. The favourite Indian

method of killing the Bison, is by riding up to the front of the herd on horseback, and shooting it with an arrow. When a large party of hunters are engaged in this way, the spectacle is very imposing, and the young hunters have many opportunities of displaying their skill and dexterity. The horses appear to enjoy the sport as much as the riders, and are very active in eluding the shock of the animal, should it turn on its pursuer. The most general practised plan, however, of shooting the Bison, is by riding towards them from to leeward ; and in favourable cases, great numbers are taken in pounds. When the Bison runs, it leans very much to first one side for a short space of time and then to the other, and so on alternately.

The flesh of a Bison, in good condition, is very juicy and well flavoured, much resembling that of well-fed beef. The tongue is considered a delicacy, and may be cured so

as to surpass in flavor the tongue of an English cow. The hump of flesh covering the long spinous processes of the first dorsal vertebræ is much esteemed. It is named *bo* by the Canadian voyagers, and *wig* by the Orkney men in the service of the Hudson's Bay Company. The *wig* has a fine grain, and when salted and cut transversely, it is almost as rich and tender as the tongue. The fine wool which clothes the Bison renders its skin, when properly dressed, an excellent blanket; and they are valued so highly that a good one sells for three or four pounds in Canada, where they are used as wrappers by those who travel over the snow in carioles. The wool has been manufactured in England into a remarkably fine and beautiful cloth, and in the colony of Osnaboyna on the Red River, a warm and durable coarse cloth is made of it. Much of the pemmican used by the voyagers attached to the fur companies, is made of Bison meat, procured at their posts on the Red River and Saskatchewan. One Bison cow in good condition furnishes dried meat and fat enough to make a bag of pemmican weighing 90lbs. The Bisons which frequent the woody parts of the country form smaller herds than those which roam over the plains, but are said to be individually of a greater size."

To the preceding account from Richardson, we subjoin the following, from Godman.

"As an exemplification of the peculiar strength of their sense of smelling, we may here relate a circumstance mentioned by Mr. Say, in that valuable and highly interesting work, Long's Expedition to the Rocky Mountains.

"The exploring party were riding through a dreary and uninteresting country, which at that time was enlivened by vast numbers of Bisons, who were moving, in countless thousands, in every direction. As the wind was blowing fresh from the south, the scent of the party was

ed directly across the river Platte, and through a distance of eight or ten miles, every step of its progress was exactly marked by the terror and consternation it produced among the Bisons. The instant their atmosphere infected by the tainted gale, they ran as violently as if closely pursued by mounted hunters, and instead of fleeing from the danger, they turned their heads towards the source, eager to escape this terrifying odour. They dashed obliquely forward towards the party, and plunging into the river, swam, waded, and ran with headlong violence, in several instances breaking through the Expedition's line of march, which was immediately along the left branch of the Platte. One of the party, (Mr. Say himself,) perceiving from the direction taken by the bull who led the extended column, that he would emerge from the low river bottom at a point where the precipitous bank was deeply cut by much travelling, urged his horse rapidly forward, so that he might reach this station, in order to gain a nearer view of these interesting animals. He had but just reached the spot when the formidable leader, bounding up the bank, gained the summit of the bank with his fore-feet, and in this position, suddenly halted from his full career, fiercely glared at the horse which stood full in his

The horse was panic-struck by this sudden apparition, trembled violently from fear, and would have wheeled and taken to flight, had not his rider exerted his utmost strength to restrain him; he recoiled, however, a few feet and sunk down upon his hams. The Bison halted for a moment, but urged forward by the irresistible pressure of the moving column behind, he rushed onward by the half-guiding horse. The herd then came swiftly on, crowding up the narrow defile. The party had now reached the spot, which extended along a considerable distance; the Bisons ran in a confused manner, in various directions, to gain the

distant bluffs, and numbers were compelled to pass through the line of march. This scene, added to the plunging and roaring of those who were yet crossing the river, produced a grand effect, that was heightened by the fire opened on them by the hunters.

“The herds of Bisons wander over the country in search of food, usually led by a bull most remarkable for strength and fierceness. While feeding, they are often scattered over a great extent of country, but when they move in mass, they form a dense and almost impenetrable column, which, once in motion, is scarcely to be impeded. Their line of march is seldom interrupted even by considerable rivers, across which they swim without fear or hesitation, ~~scarcely~~ in the order that they traverse the plains. When flying before their pursuers, it would be in vain for the foremost to halt, or attempt to obstruct the progress of the main body, as the throng in the rear still rushing onward, the leaders must advance, although destruction awaits the movement. The Indians take advantage of this circumstance to destroy great quantities of this favourite game, and, certainly, no mode could be resorted to more effectually destructive, nor could a more terrible devastation be produced, than that of forcing a numerous herd of these large animals, to leap together from the brink of a dreadful precipice, upon a rocky and broken surface, a hundred feet below.

“When the Indians determine to destroy Bisons in this way, one of their swiftest footed and most active young men is selected, who is disguised in a Bison skin, having the head, ears, and horns adjusted on his own head, so as to make the deception very complete, and thus accoutred, he stations himself between the Bison herd and some of the precipices, that often extend for several miles along the rivers. The Indians surround the herd as nearly as

ple, when, at a given signal, they show themselves rush forward with loud yells. The animals being ed, and seeing no way open but in the direction of disguised Indian, run towards him, and he, taking to , dashes on to the precipice, where he suddenly se- himself in some previously ascertained crevice. The ost of the herd arrives at the brink—there is no pos- y of retreat, no chance of escape; the foremost may . instant shrink with terror, but the crowd behind, who



terrified by the approaching hunters, rush forward with asing impetuosity, and the aggregated force hurls successively into the gulf, where certain death awaits

. better and more common way of killing Bisons is that acking them on horseback. The Indians, mounted well armed with bows and arrows, encircle the herd, gradually drive them into a situation favourable to the oyment of the horse. They then ride in and single one, generally a female, and following her as closely ssible, wound her with arrows until the mortal blow

is given, when they go in pursuit of others until their quarters are exhausted. Should a wounded Bison attack the



hunter, he escapes by the agility of his horse, which is usually well trained for the purpose. In some parts of the country, the hunter is exposed to a considerable danger of falling, in consequence of the numerous holes made in the plains by the badger.

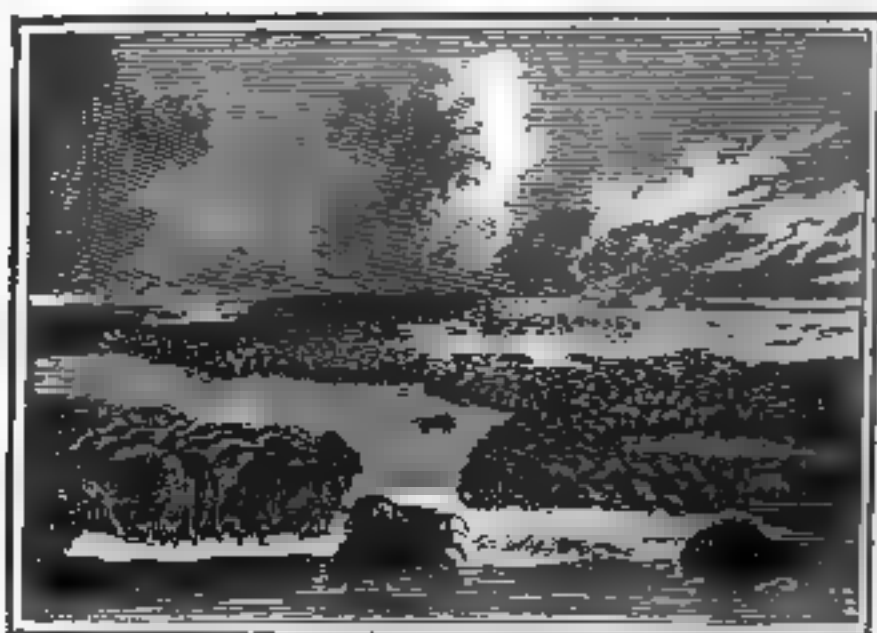
“When the hunting is ended and a sufficiency of game killed, the squaws come up from the rear to skin and dress the meat, a business in which they have acquired a great degree of dexterity, as they can, with inferior instruments, butcher a Bison with far more celerity and precision than the white hunters.

“When the ice is breaking up on the rivers in the spring of the year, the dry grass of the surrounding plains is set on fire, and the Bisons are tempted to cross the river in search of the young grass that immediately succeeds the burning of the old. In the attempt to cross, the Bison is often insulated on a large cake of ice that floats down the river. The savages select the most favourable points for attack, and as the Bison approaches, the Indians leap with

ility over the frozen ice, to attack him ; and as s necessarily unsteady, and his footing very he ice, he soon receives his death wound, and mphantly to the shore.

ee Indians make a Bison-pound, by fencing a e of about a hundred yards in diameter. The anked up with snow sufficiently high to pre- nals from retreating after they have once en- about a mile on each side of the road leading l, stakes are driven into the ground at nearly es of about twenty yards, which are intended nen, and to deter the animals from endeavour- through the fence. Within fifty or sixty yards l, branches of trees are placed between the reen the Indians who lie down behind them to approach of the Bison. The mounted hunters reatest dexterity in this sort of chase, as they to manœuvre around the herd in the plains so em into the road-way, which is about a quar- e broad. When this is effected, the Indians ouths, and pressing closely on the animals, ter- much, that they rush heedlessly forwards to- are. When they have advanced as far as the lying in ambush, they also show themselves, e consternation of the Bisons by shouting vio- ing their guns. The affrighted animals have e but to rush directly into the pound, where ckly despatched by guns or arrows. In the e of these pounds, there was a tree on which had hung stripes of Bison flesh and pieces tributary or grateful offerings to the Great fe. They occasionally place a man in the to the presiding spirit as the Bisons advance. *l to remain there until all the animals that he pound are killed.*

"We have already adverted to the great number these animals which live together. They have been in herds of three, four, and five thousand, blackening plains as far as the eye could view. Some travellers



of opinion that they have seen as many as eight or thousand in the same herd, but this is merely a conjecture. At night it is impossible for persons to sleep near them who are unaccustomed to their noise, which, from the incessant lowing and roaring of the bulls, is said very much to resemble distant thunder. Although frequent battles take place between the bulls, as among domestic cattle, the habits of the Bison are peaceful and inoffensive, seldom or never offering to attack man or other animals, and are outraged in the first instance."

It is well known that the Indians are accustomed to fire to the long grass of the prairies, which spreads with fearful rapidity on all sides. The wild horses, buffaloes, elk, deer, and other animals, conscious of the danger from the approaching flame in the greatest terror. Sometimes they are encircled by the flames, and burnt to death, and sometimes they are slain in attempting to make their escape by the Indians who lie in wait for them. The following cut exhibits a scene of this kind.

wis and Clark furnish us with an interesting account of the manner in which an Indian woman saved her child from the burning prairie. The flames were advancing



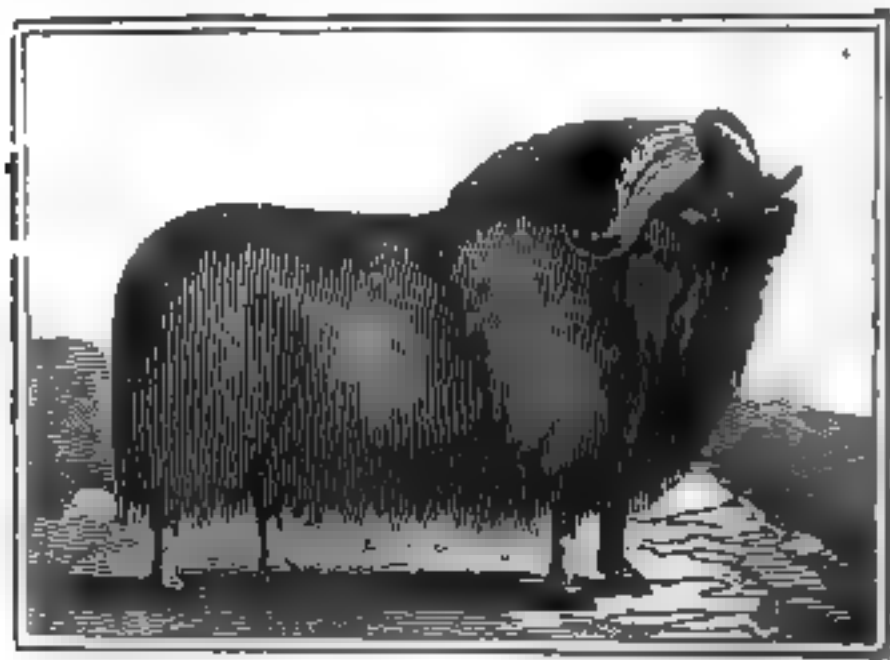
and her while she was in the plain, so rapidly, that she found it was impossible to escape with her child who was with her. She therefore wrapped it hastily in a Buffalo robe and laid it upon the ground, and leaving it there, fled herself to a place of safety. The flames passed over the child



without harming it, and the mother soon returned to take care of it.

MUSK OX.

We are indebted for the first notice of this animal to Jeremie, who carried some of its wool to France and some stockings made of it, which were said to have been more beautiful than silk. The earlier English voyagers also give us some information respecting it; but Pennant has the merit of being the first who systematically ranged and described it, from the skin of a specimen brought home by Hearne, the celebrated traveller. From its want of a naked muzzle and some other peculiarities, M. Blumville has placed it in a genus intermediate between sheep and the Ox; but it is remarkable amongst American animals, for never having had more than a specific appellation, whilst other animals of much less interest have been honoured with a long list of synonyms.



The Musk Ox inhabits the barren lands of America, extending to the northward of the 60th parallel of latitude. Hearne mentions that he once saw tracks of one within a few miles of Fort Churchill, in latitude 58°, and in his journey, he saw many in about latitude 61°. I have been informed that they do not now come so far to the south.

d even on Hudson's Bay shore ; and further to the westward, they are rarely seen in any numbers lower than latitude 67° , although from portions of their skulls and horns which are occasionally found near Great Slave Lake, it is probable that they ranged at no very distant period over the whole country, lying betwixt that great sheet of water and the Polar Sea. I have not heard of their having been seen on the banks of Mackenzie's river, to the southward of Great Bear Lake, nor do they come to the south west-end of that lake, although they exist in numbers on its north eastern arm. They range over the islands which lie to the north of the American continent as far as Melville Island, in latitude 75° ; but they do not, like the Reindeer, extend to Greenland, Spitzbergen, or Lapland. From Russian information, we learn that to the westward of the Rocky Mountains which skirt the Mackenzie, there is an extensive tract of barren country, which is also inhabited by the Musk Ox and Reindeer. It is to the Russian traders that we must look for information on this head ; but it is probable, that owing to the greater mildness of the climate to the westward of the Rocky Mountains, the Musk Ox which affects a cold barren district, where grass is replaced by lichens, does not range so far to the southward of the Pacific coast, as it does on the shores of Hudson's Bay. It is not known in New Caledonia, nor on the banks of the Columbia, nor is it found on the Rocky Mountains at the usual crossing places near the sources of the Yukon, Elk, and Saskatchewan rivers. It is, therefore, to conclude, that the animal described by Father Marten and Niça and Gomara, as an inhabitant of Mexico, is of a different species.* The Musk Ox has not crossed over

The Mexican animal is said to be a sheep, as large as a horse, with long hair, short tail, and enormous horns. The only horse which the Musk Ox can be said to resemble in size, is the Shetland Pony.

to the Asiatic shore, and does not exist in Siberia. The appearance of Musk Oxen on Melville Island, in the month of May, as ascertained on Capt. Parry's first voyage, is interesting, not merely as a part of their natural history, but as giving us reason to infer, that a chain of islands lies between Melville Island and Cape Lyon, or that Wollaston and Bank's Lands form one large island, over which the migrations of the animals must have been performed.

The districts inhabited by the Musk Ox are the proper lands of the Esquimaux, and neither the northern Indians nor the Crees have an original name for it, both terming it bison with an additional epithet. The country frequented by the Musk Ox is mostly rocky, and destitute of wood, except on the banks of large rivers, which are generally more or less thickly clothed with spruce trees. Their food is similar to that of the caribou; grass at one season, and lichens at the other; and the contents of its paunch are eaten by the natives with the same relish that they devour the "nerrooks" of the caribou. When the animal is fat, its flesh is well tasted, and resembles that of the caribou, but has a coarser grain. The flesh of the bulls is highly favoured, and both bulls and cows, when lean, smell strongly of musk; their flesh at the same time being very dark and tough, and certainly far inferior to that of any other ruminating animal existing in North America. The carcass of a Musk Ox weighs, exclusive of the offal, about three hundred weight.

Notwithstanding the shortness of the legs of the Musk Ox, it runs fast, and it climbs hills and rocks with great ease. One pursued on the banks of the Coppermine scaled a lofty sand cliff, having so great a declivity that we were obliged to crawl on hands and knees to follow it. Its foot marks are very similar to those of the caribou, but are rather longer and narrower. These oxen assemble

reds of from twenty to thirty, and the females bring one calf about the latter end of May, or beginning of . Hearne, from the circumstance of two bulls being , supposed that they kill each other in their contests he cows. If the hunters keep themselves concealed n they fire upon a herd of Musk Oxen, the poor animals take the noise for thunder, and crowd nearer and rer together as their companions fall around them ; should they discover their enemies by sight or by their se of smell which is very acute, the whole herd seek safety by instant flight. The bulls, however, are very sible, and particularly when wounded, will often attack hunter, and endanger his life, unless he possesses both vity and presence of mind. The Esquimaux, who are stomed to the pursuit of this animal, sometimes turn rritable disposition to good account ; for an expert er, having provoked a bull to attack him, wheels round re quickly than it can turn, and by repeated stabs in elly, puts an end to its life. The wool of the Musk esembles that of the bison, but is perhaps finer, and d no doubt be highly useful if it could be procured in ient quantity.—*Richardson*.

THE ARNEE.

animal, which is an inhabitant of various parts of In-orth of Bengal, far exceeds in size any of the cattle that has hitherto been discovered ; it being from e to fifteen feet in height. The horns, which are wo feet in length, are erect and semilunar, flattened, annularly wrinkled, with smooth, round, approaching s. The Arnee is seldom seen within the European ments, but a very young one was picked up alive in anges, some years ago, which was as big as an im-ely large bullock, and weighed nearly three quarters

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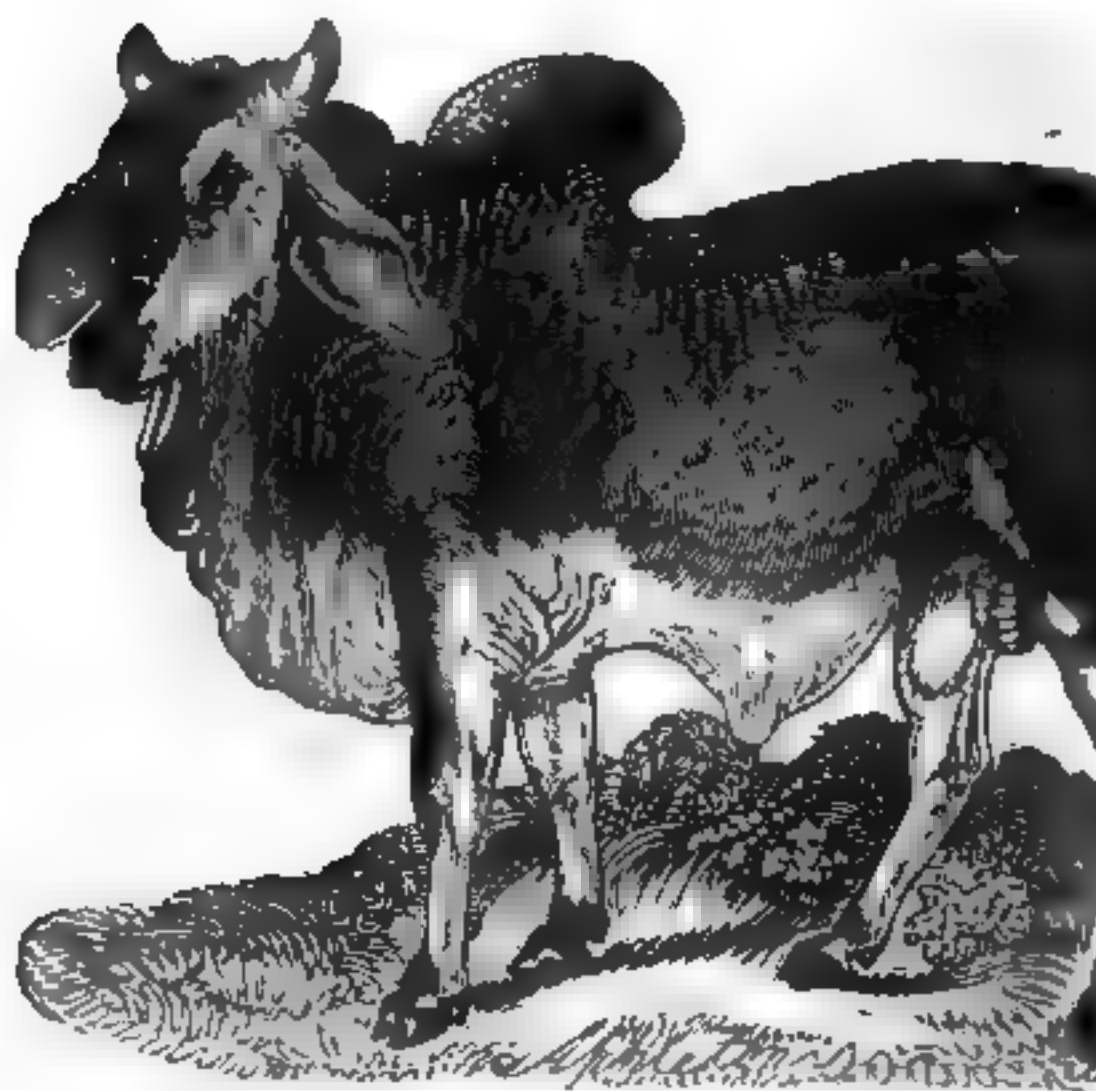
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THE ARNEE.

This animal, which is an inhabitant of various parts of India north of Bengal, far exceeds in size any of the cattle that has hitherto been discovered; it being from twelve to fifteen feet in height. The horns, which are two feet in length, are erect and semilunar, flattened, annularly wrinkled, with smooth, round, approaching tips. The Arnee is seldom seen within the European dominions, but a very young one was picked up alive in the Ganges, some years ago, which was as big as an immensely large bullock, and weighed nearly three quarters

of a ton. A British officer, who found one in the country above Bengal, describes it as a bold daring animal, and its form as seeming to partake of the horse, the bull, and the deer. Some of the natives are said to keep Arnees for parade, under the names of fighting bullocks.

INDIAN OX.



In addition to the domesticated species known by the names of Oxen, Buffaloes, and Jacks, the genus *Bos* comprehends several others equally distinct, which have rarely, if ever, been reclaimed from their native wildness. Two of these, the Bison and the Musk Ox, are peculiar to the northern regions of America ; one, the Polish Aurochs, is now confined to a single European forest ; a fourth

Arui, exists only in Central Asia; and a fifth, the Cape Buffalo, is, as its name imports, a native of the southern extremity of Africa. Thus it appears that in this wide dispersion of the several races, each region has preserved its own peculiar kind in its original independence; while, on the other hand, two at least of the remaining species, the Ox and the Buffalo, which are no longer to be found in a state of nature, have been industriously propagated, under the auspices of man, throughout almost every part of the surface of the globe. The Jack alone, of all the domestic species, remains confined within its primitive limits, in Thibet, namely, and a part of Tartary, where it is said to be generally cultivated, almost to the exclusion of every other race.

The characters by which the strongly marked group of animals thus associated together are distinguished from the neighbouring tribes, are, like most of those which serve to subdivide the great family of the Ruminants, of a very subordinate description. Their horns are common to both sexes, simple in their form, curved outwards at the base and upwards towards the point, and supported internally by long processes arising from the skull, having cavities within them communicating with the frontal sinuses, which are largely developed. Their muzzle is of large size: the skin along the middle of the neck and chest forms a pendulous dewlap of greater or less extent; and the general robustness of their make is strikingly contrasted with the lightness and elegance of form of some of the nearly related groups.

In enumerating the species of which this genus is composed, we have abstained from mentioning the Zebu or Indian Ox, simply because we do not consider it entitled to hold that rank in the scale of nature. There can be little doubt that it is merely a variety of the Common Ox, al-

though it is difficult to ascertain the causes by which distinctive characters of the two races have been produced. But whatever causes may have been, their effects rapidly disappear on the intermixture of the breeds, and are entirely lost at the end of a few generations. This intermixture and the results would alone furnish a sufficient proof of identical origin ; which consequently scarcely requires confirmation to be derived from the perfect agreement of the internal structure, and of all the more essential parts of their external conformation. These, however, are wanting : not only is their anatomical structure the same, but the form of their heads, which affords the only means of distinguishing the actual species of this animal from each other, presents no difference whatever. Both the forehead is flat, or more properly slightly depressed ; nearly square in its outlines, its height being equal to its breadth ; and bounded above by a prominent line, forming an angular protuberance, passing directly across the skull between the basis of the horns. The only circumstances in fact in which the two animals differ consist in a fatty hump on the shoulders of the Zebu, and in the somewhat more slender and delicate make of its legs.

Numerous breeds of this humped variety, varying in size from that of a large Mastiff-dog to that of a full-grown Buffalo, are spread, more or less extensively, over the whole of Southern Asia, the Islands of the Indian Archipelago, and the Eastern coast of Africa from Abyssinia to the Cape of Good Hope. In all these countries the animal supplies the place of the Ox both as a beast of burthen and as an article of food and domestic economy. In some parts of India it executes the duties of the horse also, being either saddled and ridden, or harnessed in a cart and performing in this manner journeys of considerable

th with tolerable celerity. Some of the older writers speak of fifty or sixty miles a day as its usual rate of travelling; but the more moderate computation of recent authors does not exceed from twenty to thirty. Its speed is considered by no means despicable, although not equalling that of the European Ox. The hump, which is chiefly composed of fat, is reckoned the most valuable part.

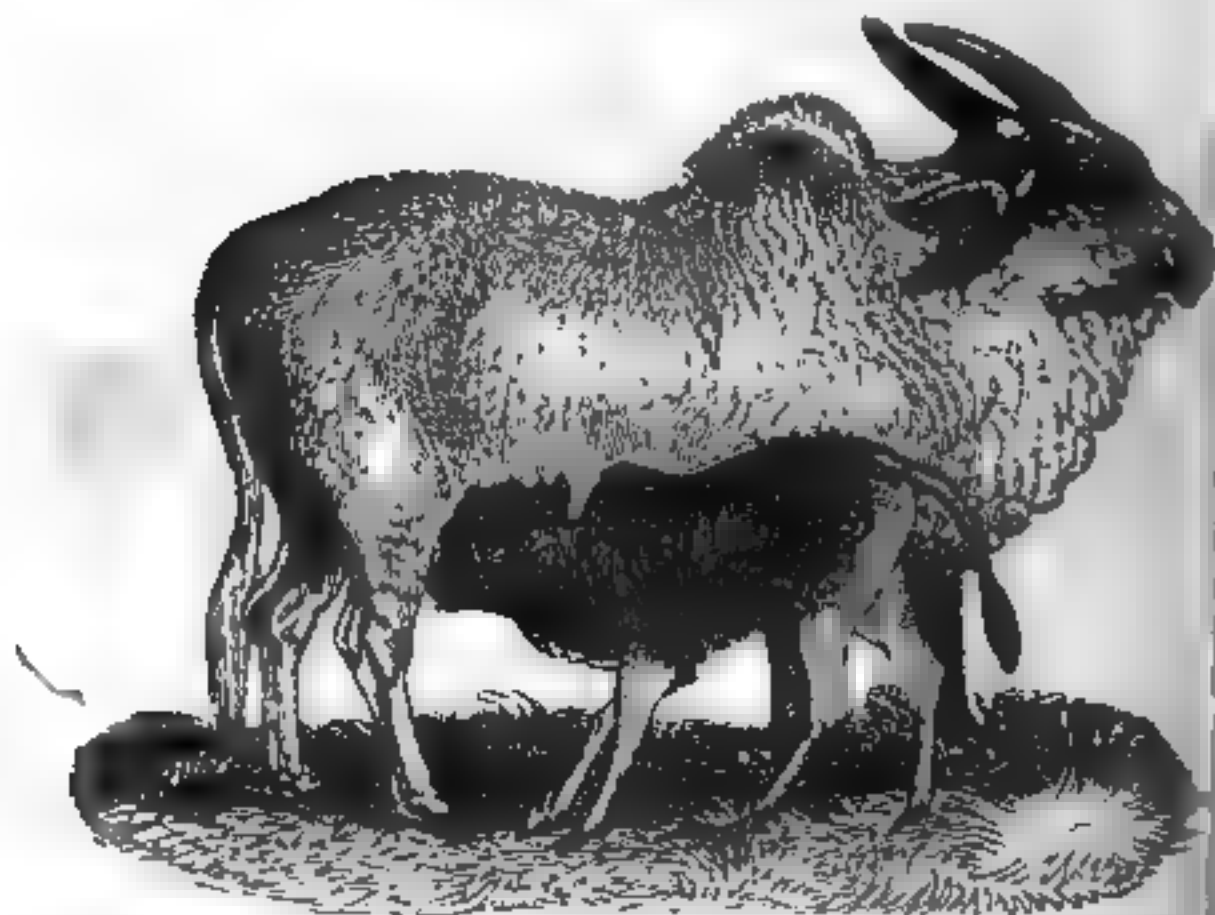
As might naturally be expected from its perfect domestication and wide diffusion, the Zebu is subject to as great variety of colours as those which affect the European. Its most common hue is a light ashy gray, passing into a cream colour or milk white; but it is not unfrequently marked with various shades of red or brown, and occasionally it becomes perfectly black. Its hump is sometimes elevated in a remarkable degree, and usually stands in its upright position; but sometimes it becomes pendulous, and hangs partly over towards one side. Instances are cited in which it had attained the enormous weight of fifty pounds. A distinct breed is spoken of as common in Surat, which is furnished with a second hump. Among the other breeds there are some which are entirely destitute of horns, and others which have only the semblance of them, the external covering being unsupported by bony processes, and being consequently flexible and pendulous.

The specimen now before us (in the Zoological Garden of London) is one of the largest that have ever been introduced into Europe. It is fully equal in size to the larger breeds of our native oxen, and is of a slaty gray on the body and head; with cream-coloured legs and dewlap, the latter exceedingly long and pendulous; very short ears directed upwards and outwards; and ears of great proportional magnitude, and so flexible and obedient to

the animal's will as to be moved in all directions with the greatest facility. Although a full grown male, he is perfectly quiet, good-tempered, and submissive.

Zoological Gardens.

ZEBU.



THERE is little difference, except in size, between the more common of the Indian breeds, and that which we have just described. Both are evidently descended from the same original stock; and the distinctions between them are merely such as we know to be produced by the influence of cultivation, of climate, and of food. It is nevertheless a remarkable fact that the same region should produce two breeds so strikingly unequal in size; and less so that in a country in which the nearly related species of the Buffalo has reached its maximum of development, the common ox should have dwindled down to its minimum point of degradation. In spite, however, of the

it has lost none of those good qualities which rendered it so essential to the comforts and almost existence of the human race ; but exhibits even more activity, and greater intelligence, as well as more acuteness, than fall to the lot of the common European.

In the smaller race the Zoological Society of London has sent numerous specimens, which vary considerably in colour, the shape and extent of their horns, the size of their humps, and other equally unimportant particulars.

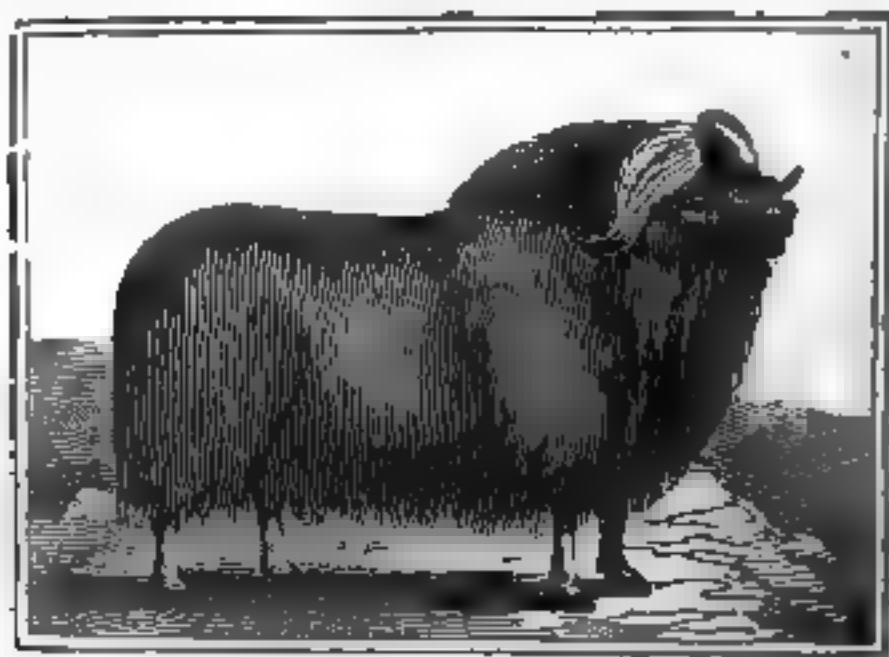
But the same general forms, and the same docility and docility of disposition, are observable in all the individuals which have come under our notice, including specimens of a yet smaller race, which scarcely reach six feet in height, and measures little more than six feet in total length.

All the breeds are treated with great veneration by the Hindoos, who hold it sinful to deprive them of any pretext whatever. But they do not, in general, endeavour to make the animals labour for their benefit ; they consider it the height of impiety to eat of them.

A select number are, however, exempted from this prohibition, and have the privilege of straying about the fields and villages, and of taking their food wheresoever they please, if not sufficiently supplied by the pious offerings of the devotees who impose on themselves the duty of this office.—*Zoological Gardens.*

MUSK OX.

WE are indebted for the first notice of this animal to Mr. Jeremie, who carried some of its wool to France and had some stockings made of it, which were said to have been more beautiful than silk. The earlier English voyagers also give us some information respecting it; but Pennant has the merit of being the first who systematically arranged and described it, from the skin of a specimen sent home by Hearne, the celebrated traveller. From its want of a naked muzzle and some other peculiarities, M. Blainville has placed it in a genus intermediate between the sheep and the Ox; but it is remarkable amongst the American animals, for never having had more than one specific appellation, whilst other animals of much less interest have been honoured with a long list of synonyms.



The Musk Ox inhabits the barren lands of America, lying to the northward of the 60th parallel of latitude. Hearne mentions that he once saw tracks of one within a few miles of Fort Churchill, in latitude 59°, and in his first journey, he saw many in about latitude 61°. I have been informed that they do not now come so far to the south-

even on Hudson's Bay shore; and further to the ward, they are rarely seen in any numbers lower than 67° , although from portions of their skulls and horns are occasionally found near Great Slave Lake, it is able that they ranged at no very distant period over whole country, lying betwixt that great sheet of water the Polar Sea. I have not heard of their having been on the banks of Mackenzie's river, to the southward of Great Bear Lake, nor do they come to the south west-end of that lake, although they exist in numbers on its eastern arm. They range over the islands which the north of the American continent as far as Mel-Island, in latitude 75° ; but they do not, like the Reindeer, extend to Greenland, Spitzbergen, or Lapland. From information, we learn that to the westward of the Rocky Mountains which skirt the Mackenzie, there is an extensive tract of barren country, which is also inhabited by the Musk Ox and Reindeer. It is to the Russian tract that we must look for information on this head; but probable, that owing to the greater mildness of the climate to the westward of the Rocky Mountains, the Musk Ox, which affects a cold barren district, where grass is replaced by lichens, does not range so far to the southward to the Pacific coast, as it does on the shores of Hudson's Bay.

It is not known in New Caledonia, nor on the banks of the Columbia, nor is it found on the Rocky Mountains at the usual crossing places near the sources of the Colorado, Elk, and Saskatchewan rivers. It is, therefore, to conclude, that the animal described by Father Martini, Niça and Gomara, as an inhabitant of Mexico, is of a different species.* The Musk Ox has not crossed over

The Mexican animal is said to be a sheep, as large as a horse, long hair, short tail, and enormous horns. The only horse which the Musk Ox can be said to resemble in size, is the Shetland Pony.

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The districts inhabited by the Musk Ox are the proper lands of the Esquimaux, and neither the northern Indians nor the Crees have an original name for it, both terming it bison with an additional epithet. The country frequented by the Musk Ox is mostly rocky, and destitute of wood except on the banks of large rivers, which are generally more or less thickly clothed with spruce trees. Their food is similar to that of the caribou; grass at one season, and lichens at the other; and the contents of its paunch are eaten by the natives with the same relish that they devour the "nerrooks" of the caribou. When the animal is killed its flesh is well tasted, and resembles that of the caribou but has a coarser grain. The flesh of the bulls is highly valued, and both bulls and cows, when lean, smell strong of musk; their flesh at the same time being very dark and tough, and certainly far inferior to that of any other ruminating animal existing in North America. The carcass of a Musk Ox weighs, exclusive of the offal, about three hundred weight.

Notwithstanding the shortness of the legs of the Musk Ox, it runs fast, and it climbs hills and rocks with great ease. One pursued on the banks of the Coppermine scaled a lofty sand cliff, having so great a declivity that we were obliged to crawl on hands and knees to follow it. Its foot marks are very similar to those of the caribou, but are rather longer and narrower. These oxen assemble

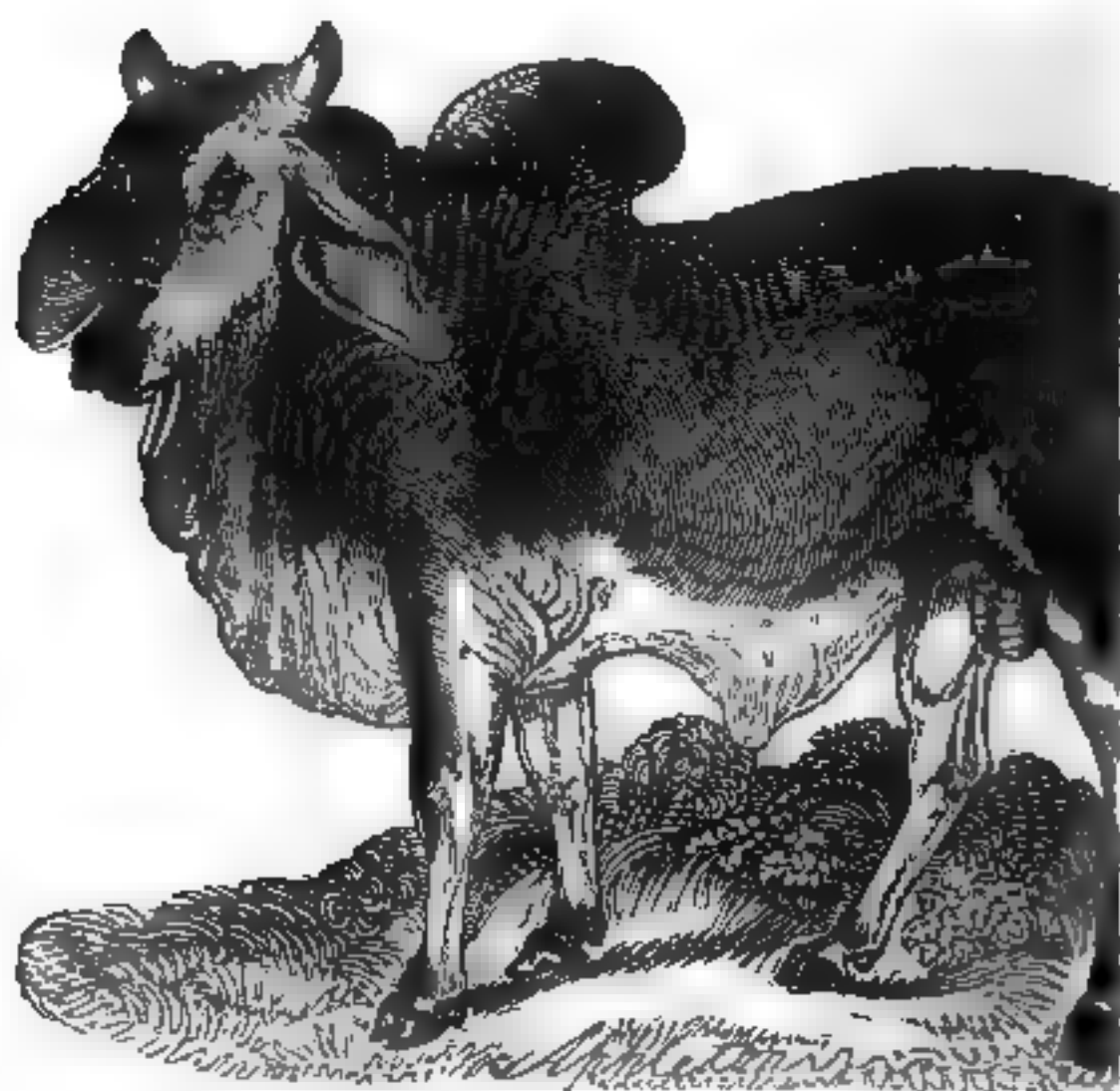
from twenty to thirty, and the females bring calf about the latter end of May, or beginning of June, from the circumstance of two bulls being posed that they kill each other in their contests &c. If the hunters keep themselves concealed fire upon a herd of Musk Oxen, the poor animals take the noise for thunder, and crowd nearer and together as their companions fall around them; they discover their enemies by sight or by their smell which is very acute, the whole herd seek by instant flight. The bulls, however, are very bold and particularly when wounded, will often attack the hunter; and endanger his life, unless he possesses both courage and presence of mind. The Esquimaux, who are addicted to the pursuit of this animal, sometimes turn this disposition to good account; for an expert hunter, by provoking a bull to attack him, wheels round quicker than it can turn, and by repeated stabs in the back puts an end to its life. The wool of the Musk Ox is finer than that of the bison, but is perhaps finer, and doubtless be highly useful if it could be procured in quantity.—*Richardson.*

THE ARNEE.

The Arnee, which is an inhabitant of various parts of India, of Bengal, far exceeds in size any of the cattle which has hitherto been discovered; it being from fifteen feet in height. The horns, which are six feet in length, are erect and semilunar, flattened, and early wrinkled, with smooth, round, approaching the point. The Arnee is seldom seen within the European settlements, but a very young one was picked up alive in the mountains, some years ago, which was as big as an immense bullock, and weighed nearly three quarters

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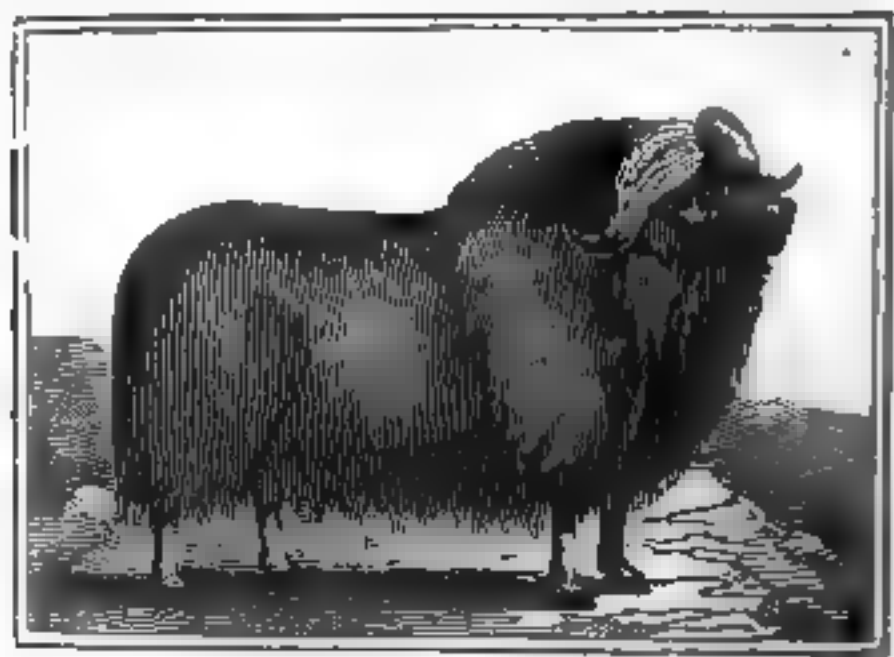
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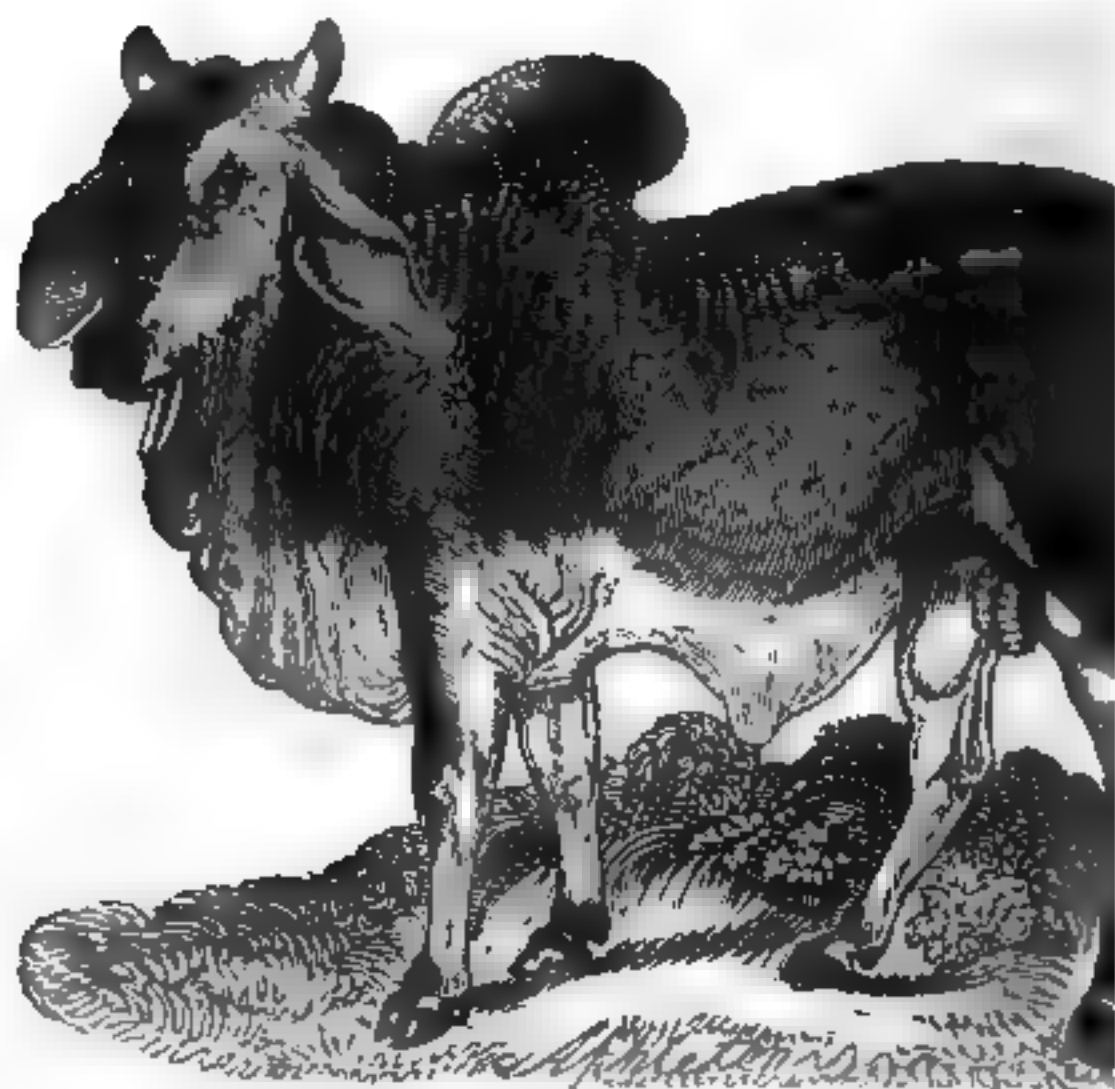
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Numerous breeds of this humped variety, varying in size from that of a large Mastiff-dog to that of a full-grown Buffalo, are spread, more or less extensively, over the whole of Southern Asia, the Islands of the Indian Archipelago, and the Eastern coast of Africa from Abyssinia to the Cape of Good Hope. In all these countries the Ox supplies the place of the Horse both as a beast of burthen and as an article of food and domestic economy. In some parts of India it executes the duties of the horse and is employed either saddled and ridden, or harnessed in a carriage and performing in this manner journeys of considerable

with tolerable celerity. Some of the older writers of fifty or sixty miles a day as its usual rate of going; but the more moderate computation of recent times does not exceed from twenty to thirty. Its speed is considered by no means despicable, although far surpassing that of the European Ox. The hump, which is chiefly composed of fat, is reckoned the most valuable part.

It might naturally be expected from its perfect domed and wide diffusion, the Zebu is subject to as great a variety of colours as those which affect the European Ox. Its most common hue is a light ashy gray, passing into cream colour or milk white; but it is not unfrequently marked with various shades of red or brown, and occasionally it becomes perfectly black. Its hump is very elevated in a remarkable degree, and usually stands in its upright position; but sometimes it becomes pendulous, and hangs partly over towards one side. Instances are cited in which it had attained the enormous weight of fifty pounds. A distinct breed is spoken of as existing in Surat, which is furnished with a second hump. In the other breeds there are some which are entirely devoid of horns, and others which have only the semicircular horns, the external covering being unsupported by bony processes, and being consequently flexible and pliant.

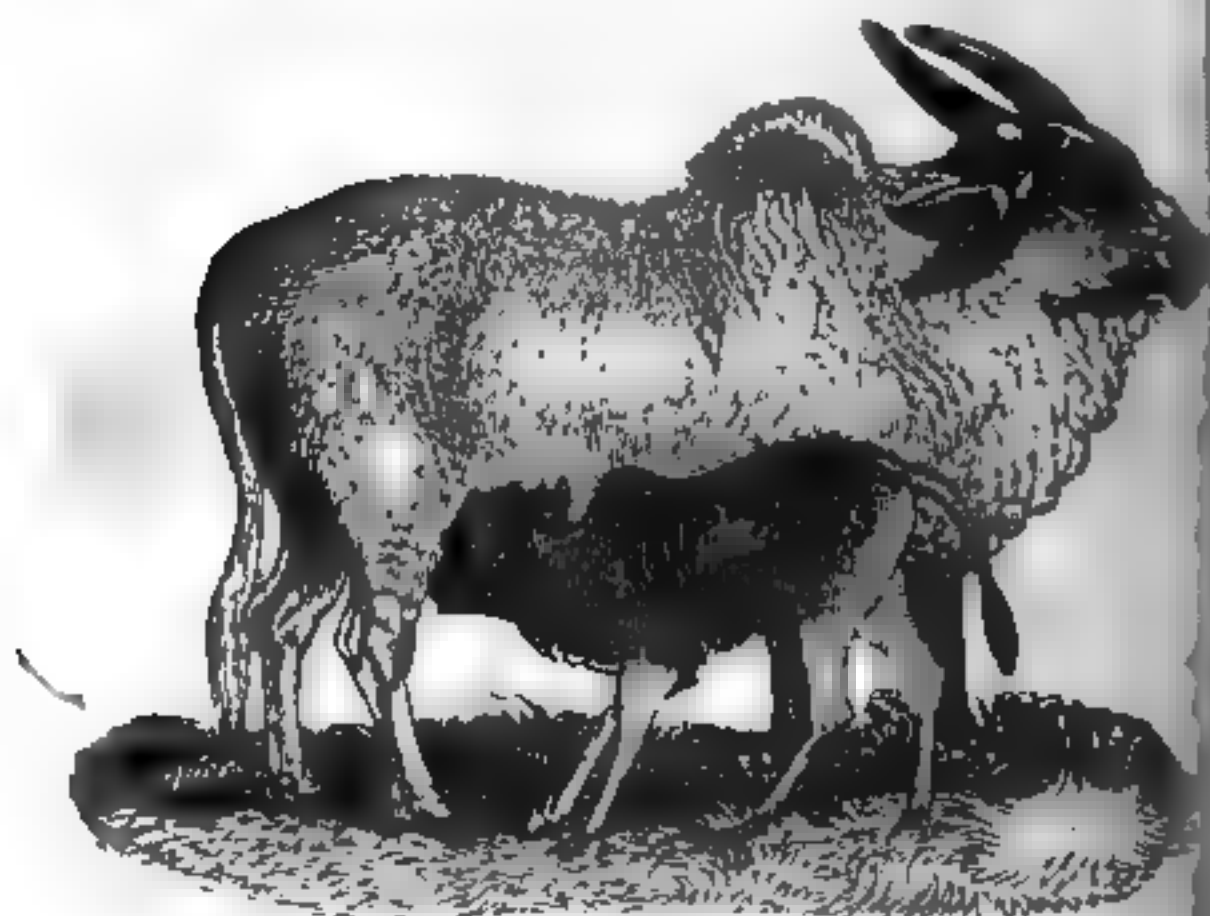
The specimen now before us (in the Zoological Garden at London) is one of the largest that have ever been brought to Europe.

It is fully equal in size to the larger breeds of our native oxen, and is of a slaty gray on the head; with cream-coloured legs and dewlap, which is exceedingly long and pendulous; very short ears directed upwards and outwards; and ears of great relative magnitude, and so flexible and obedient to

the animal's will as to be moved in all directions with the greatest facility. Although a full grown male, he is perfectly quiet, good-tempered, and submissive.

Zoological Gardens.

ZEBU.



THERE is little difference, except in size, between the more common of the Indian breeds, and that which we have just described. Both are evidently descended from the same original stock; and the distinctions between them are merely such as we know to be produced by the influence of cultivation, of climate, and of food. It is nevertheless a remarkable fact that the same region should produce two breeds so strikingly unequal in size; and less so that in a country in which the nearly related species of the Buffalo has reached its maximum of development, the common ox should have dwindled down to a minimum point of degradation. In spite, however, of the

eneracy it has lost none of those good qualities which rendered it so essential to the comforts and almost the existence of the human race; but exhibits even docility, and greater intelligence, as well as more activity of limb, than fall to the lot of the common European.

Of this smaller race the Zoological Society of London at present possesses numerous specimens, which vary considerably in their colours, the shape and extent of their horns, size of their humps, and other equally unimportant particulars. But the same general forms, and the same mildness of disposition, are observable in all the individuals which have come under our notice, including several specimens of a yet smaller race, which scarcely exceeds two feet in height, and measures little more than one foot in total length.

The whole of the breeds are treated with great veneration by the Hindoos, who hold it sinful to deprive them of food under any pretext whatever. But they do not, in general, scruple to make the animals labour for their benefit; though they consider it the height of impiety to eat of their flesh. A select number are, however, exempted from all services, and have the privilege of straying about towns and villages, and of taking their food wherever they please, if not sufficiently supplied by the pious contributions of the devotees who impose on themselves a charitable office.—*Zoological Gardens.*

MUSK OX.

We are indebted for the first notice of this animal to Mr. Jeremie, who carried some of its wool to France and had some stockings made of it, which were said to have been more beautiful than silk. The earlier English voyagers also give us some information respecting it; but Pennant has the merit of being the first who systematically arranged and described it, from the skin of a specimen sent home by Hearne, the celebrated traveller. From its want of a naked muzzle and some other peculiarities, M. Blauville has placed it in a genus intermediate between the sheep and the Ox; but it is remarkable amongst the American animals, for never having had more than one specific appellation, whilst other animals of much less interest have been honoured with a long list of synonyms.



The Musk Ox inhabits the barren lands of America, lying to the northward of the 60th parallel of latitude. Hearne mentions that he once saw tracks of one within a few miles of Fort Churchill, in latitude 59°, and in his first journey, he saw many in about latitude 61°. I have been informed that they do not now come so far to the south-

on Hudson's Bay shore ; and further to the
they are rarely seen in any numbers lower than
although from portions of their skulls and horns
occasionally found near Great Slave Lake, it is
at they ranged at no very distant period over
country, lying betwixt that great sheet of water
ar Sea. I have not heard of their having been
banks of Mackenzie's river, to the southward
ar Lake, nor do they come to the south west-
hat lake, although they exist in numbers on its
n arm. They range over the islands which
orth of the American continent as far as Mel-
in latitude 75° ; but they do not, like the Rein-
l to Greenland, Spitzbergen, or Lapland. From
mation, we learn that to the westward of the
ntains which skirt the Mackenzie, there is an
act of barren country, which is also inhabited
k Ox and Reindeer. It is to the Russian tra-
e must look for information on this head ; but
e, that owing to the greater mildness of the
ie westward of the Rocky Mountains, the Musk
ffects a cold barren district, where grass is re-
chens, does not range so far to the southward
fic coast, as it does on the shores of Hudson's
not known in New Caledonia, nor on the banks
mbia, nor is it found on the Rocky Mountain
usual crossing places near the sources of the
, and Saskatchewan rivers. It is, therefore,
ude, that the animal described by Father Mar-
and Gomara, as an inhabitant of Mexico, is of
pecies.* The Musk Ox has not crossed over

ican animal is said to be a sheep, as large as a horse,
, short tail, and enormous horns. The only horse which
can be said to resemble in size, is the Shetland Pony.

to the Asiatic shore, and does not exist in Siberia. The appearance of Musk Oxen on Melville Island, in the month of May, as ascertained on Capt. Parry's first voyage, is interesting, not merely as a part of their natural history, but as giving us reason to infer, that a chain of islands lies between Melville Island and Cape Lyon, or that Wollaston and Bank's Lands form one large island, over which the migrations of the animals must have been performed.

The districts inhabited by the Musk Ox are the proper lands of the Esquimaux, and neither the northern Indians nor the Crees have an original name for it, both terming it bison with an additional epithet. The country frequented by the Musk Ox is mostly rocky, and destitute of wood, except on the banks of large rivers, which are generally more or less thickly clothed with spruce trees. Their food is similar to that of the caribou; grass at one season, and lichens at the other; and the contents of its paunch are eaten by the natives with the same relish that they devour the "nerrooks" of the caribou. When the animal is fat, its flesh is well tasted, and resembles that of the caribou, but has a coarser grain. The flesh of the bulls is highly favoured, and both bulls and cows, when lean, smell strongly of musk; their flesh at the same time being very dark and tough, and certainly far inferior to that of any other ruminating animal existing in North America. The carcass of a Musk Ox weighs, exclusive of the offal, about three hundred weight.

Notwithstanding the shortness of the legs of the Musk Ox, it runs fast, and it climbs hills and rocks with great ease. One pursued on the banks of the Coppermine, scaled a lofty sand cliff, having so great a declivity that we were obliged to crawl on hands and knees to follow it. Its foot marks are very similar to those of the caribou, but are rather longer and narrower. These oxen assemble

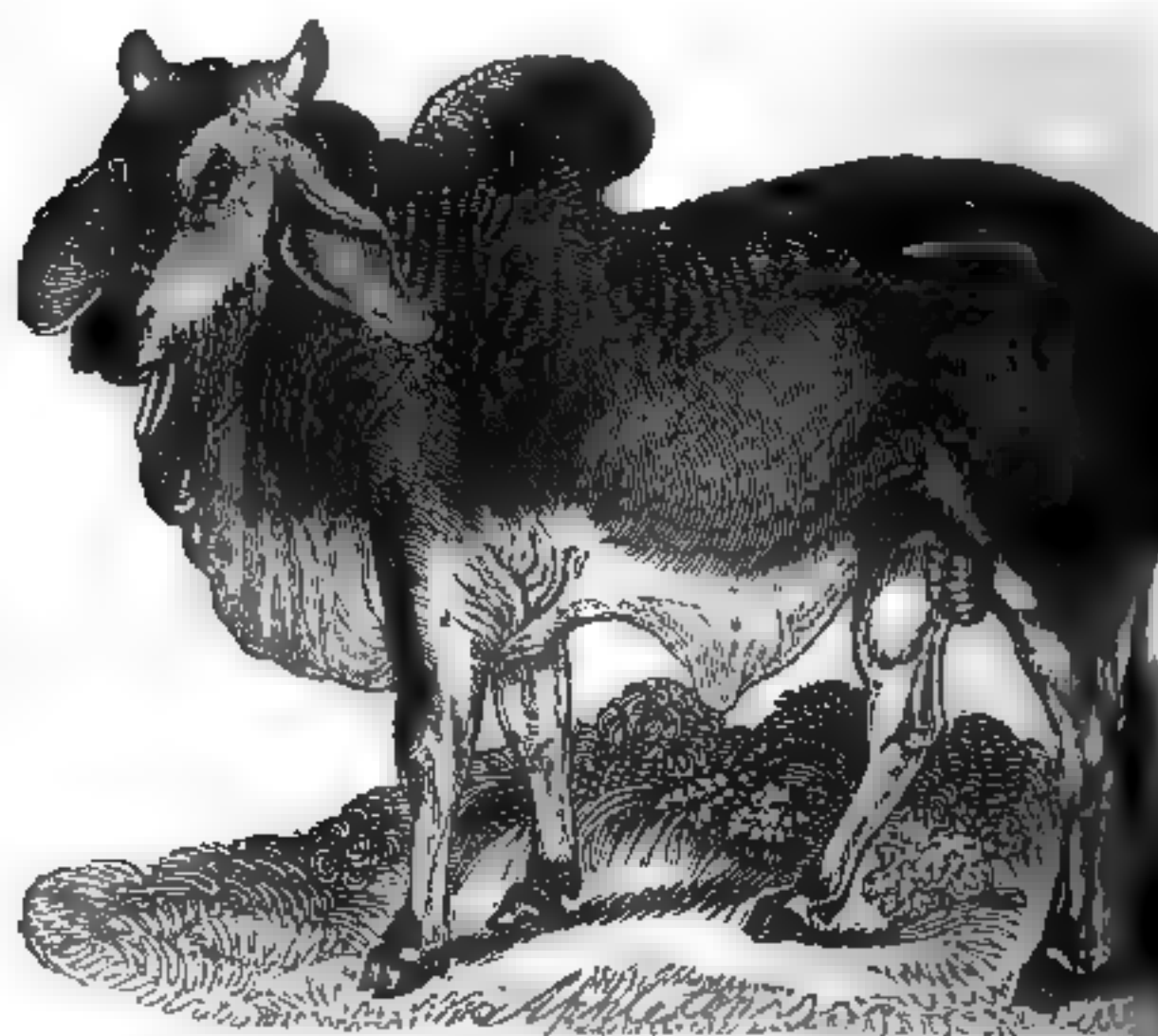
from twenty to thirty, and the females bring calf about the latter end of May, or beginning of June, from the circumstance of two bulls being used that they kill each other in their contests. If the hunters keep themselves concealed fire upon a herd of Musk Oxen, the poor animals take the noise for thunder, and crowd nearer and nearer as their companions fall around them; they discover their enemies by sight or by their smell which is very acute, the whole herd seek for instant flight. The bulls, however, are very bold particularly when wounded, will often attack and endanger his life, unless he possesses both the presence of mind. The Esquimaux, who are devoted to the pursuit of this animal, sometimes turn to good account; for an expert hunter, by provoking a bull to attack him, wheels round more quickly than it can turn, and by repeated stabs inflicts an end to its life. The wool of the Musk Ox is finer than that of the bison, but is perhaps finer, and doubt be highly useful if it could be procured in quantity.—*Richardson.*

THE ARNEE.

The Arnee, which is an inhabitant of various parts of India, Bengal, far exceeds in size any of the cattle that has hitherto been discovered; it being from fifteen feet in height. The horns, which are great in length, are erect and semilunar, flattened, and deeply wrinkled, with smooth, round, approaching the Arnee is seldom seen within the European countries, but a very young one was picked up alive in India, some years ago, which was as big as an immense bullock, and weighed nearly three quarters

of a ton. A British officer, who found one in the woods in the country above Bengal, describes it as a bold and daring animal, and its form as seeming to partake of the horse, the bull, and the deer. Some of the native princes are said to keep Arnees for parade, under the name of fighting bullocks.

INDIAN OX.



In addition to the domesticated species known by the names of Oxen, Buffaloes, and Jacks, the genus *Bos* comprehends several others equally distinct, which have rarely, if ever, been reclaimed from their native wildness. Two of these, the Bison and the Musk Ox, are peculiar to the northern regions of America ; one, the Polish Ance, is now confined to a single European forest ; a fourth, the

ii, exists only in Central Asia ; and a fifth, the Cape ffalo, is, as its name imports, a native of the southern remity of Africa. Thus it appears that in this wide version of the several races, each region has preserved own peculiar kind in its original independence ; while, the other hand, two at least of the remaining species,

Ox and the Buffalo, which are no longer to be found in state of nature, have been industriously propagated, under the auspices of man, throughout almost every part of the surface of the globe. The Jack alone, of all the domestic species, remains confined within its primitive limits in Thibet, namely, and a part of Tartary, where it is to be generally cultivated, almost to the exclusion of every other race.

The characters by which the strongly marked group of Oxen thus associated together are distinguished from the neighbouring tribes, are, like most of those which we are to subdivide the great family of the Reuminants, of every subordinate description. Their horns are common to both sexes, simple in their form, curved outwards at the base and upwards towards the point, and supported internally by long processes arising from the skull, having cavities within them communicating with the frontal sinuses, which are largely developed. Their muzzle is of large size: the skin along the middle of the neck and chest forms a pendulous dewlap of greater or less extent ; and the general robustness of their make is strikingly contrasted with the lightness and elegance of form of some of the early related groups.

In enumerating the species of which this genus is composed, we have abstained from mentioning the Zebu or Indian Ox, simply because we do not consider it entitled to hold that rank in the scale of nature. There can be little doubt that it is merely a variety of the Common Ox, al-

though it is difficult to ascertain the causes by which the distinctive characters of the two races have been in the process of time gradually produced. But whatever the causes may have been, their effects rapidly disappear by the intermixture of the breeds, and are entirely lost at the end of a few generations. This intermixture and its results would alone furnish a sufficient proof of identity of origin; which consequently scarcely requires the conformation to be derived from the perfect agreement of their internal structure, and of all the more essential particulars of their external conformation. These, however, are not wanting: not only is their anatomical structure the same, but the form of their heads, which affords the only certain means of distinguishing the actual species of this genus from each other, presents no difference whatever. In both the forehead is flat, or more properly slightly depressed; nearly square in its outlines, its height being equal to its breadth; and bounded above by a prominent line, forming an angular protuberance, passing directly across the skull between the basis of the horns. The only circumstances in fact in which the two animals differ consist in a fatty hump on the shoulders of the Zebu, and in the somewhat more slender and delicate make of its legs.

Numerous breeds of this humped variety, varying in size from that of a large Mastiff-dog to that of a full-grown Buffalo, are spread, more or less extensively, over the whole of Southern Asia, the Islands of the Indian Archipelago, and the Eastern coast of Africa from Abyssinia to the Cape of Good Hope. In all these countries the Zebu supplies the place of the Ox both as a beast of burthen and as an article of food and domestic economy. In some parts of India it executes the duties of the horse also, being either saddled and ridden, or harnessed in a carriage, and performing in this manner journeys of considerable

with tolerable celerity. Some of the older writers of fifty or sixty miles a day as its usual rate of going; but the more moderate computation of recent times does not exceed from twenty to thirty. Its speed is considered by no means despicable, although far surpassing that of the European Ox. The hump, which is chiefly composed of fat, is reckoned the most valuable part.

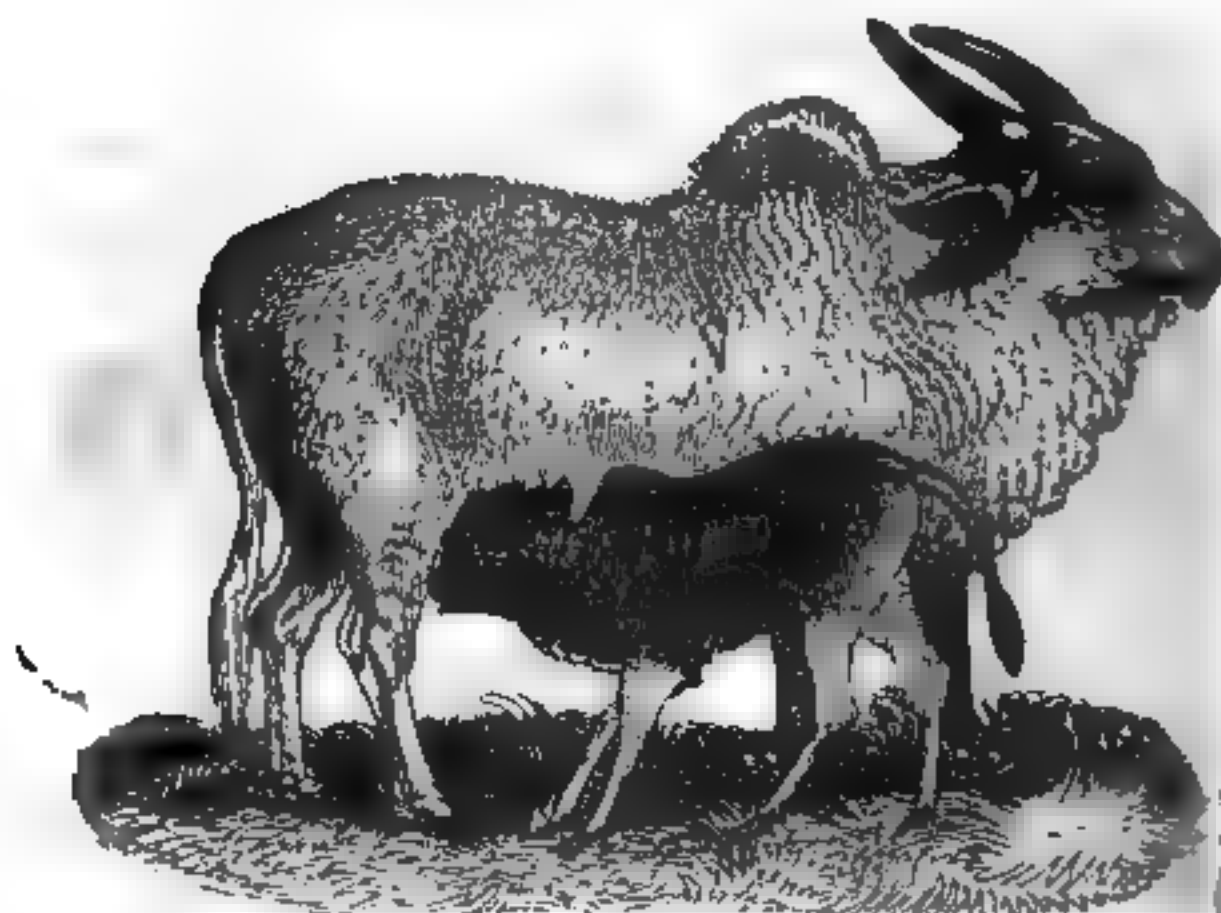
It might naturally be expected from its perfect domesticity and wide diffusion, the Zebu is subject to as great a variety of colours as those which affect the European Ox. Its most common hue is a light ashy gray, passing into cream colour or milk white; but it is not unfrequently marked with various shades of red or brown, and finally it becomes perfectly black. Its hump is sometimes elevated in a remarkable degree, and usually stands in its upright position; but sometimes it becomes pendulous, and hangs partly over towards one side. Instances are cited in which it had attained the enormous weight of fifty pounds. A distinct breed is spoken of as existing in Surat, which is furnished with a second hump. Among the other breeds there are some which are entirely destitute of horns, and others which have only the semicircular horns, the external covering being unsupported by bony processes, and being consequently flexible and pliant.

The specimen now before us (in the Zoological Garden of London) is one of the largest that have ever been introduced into Europe. It is fully equal in size to the larger breeds of our native oxen, and is of a slaty gray on the body and head; with cream-coloured legs and dewlap, the ears exceedingly long and pendulous; very short directed upwards and outwards; and ears of great relative magnitude, and so flexible and obedient to

the animal's will as to be moved in all directions with the greatest facility. Although a full grown male, he is perfectly quiet, good-tempered, and submissive.

Zoological Gardens.

ZEBU.



THERE is little difference, except in size, between the more common of the Indian breeds, and that which we have just described. Both are evidently descended from the same original stock; and the distinctions between them are merely such as we know to be produced by the influence of cultivation, of climate, and of food. It is nevertheless a remarkable fact that the same region should produce two breeds so strikingly unequal in size; and so less so that in a country in which the nearly related species of the Buffalo has reached its maximum of development, the common ox should have dwindled down to its minimum point of degradation. In spite, however, of this

it has lost none of those good qualities which rendered it so essential to the comforts and almost existence of the human race ; but exhibits even more strength, and greater intelligence, as well as more activity, than fall to the lot of the common European-

smaller race the Zoological Society of London sent numerous specimens, which vary considerably in colour, the shape and extent of their horns, the size of their humps, and other equally unimportant particulars.

But the same general forms, and the same gentleness of disposition, are observable in all the individuals which have come under our notice, including specimens of a yet smaller race, which scarcely exceed six feet in height, and measures little more than six feet in total length.

All the breeds are treated with great veneration by the Hindoos, who hold it sinful to deprive them of any pretext whatever. But they do not, in general, make the animals labour for their benefit ; they consider it the height of impiety to eat of them. A select number are, however, exempted from these vices, and have the privilege of straying about the neighbourhood of the villages, and of taking their food where soever they please, if not sufficiently supplied by the pious offerings of the devotees who impose on themselves the duty of this office.—*Zoological Gardens.*

CHAP. XVII.

*Of the Mouflon, and other Sheep....The Axis....The Tapir
The Zebra....The Zebra of the Plains....The Hippo-
mus....The Elk, and Rein-deer....The Malayan R
Deer.*

THE MOUFLON, OR ARGALI,
AND OTHER SHEEP.

THE Argali, or wild Sheep, is an inhabitant of rocky mountainous regions, and is principally found in the pine parts of Asia. Dr. Pallas observed this species existing throughout the vast chain of mountains extending through the middle of that continent to the Eastern

The Argalis are very plentiful in Kamtschatka and bary, as well as in the mountains of Greece and in Corsican and Sardinian islands, merely differing in slight particulars of size and colour, according to climate.



These animals have large horns, arched semicircular backward, and divergent at their tips, wrinkled on upper surface, and flattened beneath: on the neck

at hairy dewlaps. This creature is about the fallow deer. It is of a gray ferruginous brown ve, and whitish beneath: the face is also of a e; and behind each of the shoulders a dusky ot is often discovered. In the European vari- s are generally white: the head exhibits much ce to the ram; but the ears are considerably proportion to its size. The body is large; but and legs are slender, and the latter are very he tail is very short, being seldom more than es in length. The horns, in the adult or full- mal, have much the appearance of those of the m. This animal has hair instead of wool, thus ering from the general aspect of the sheep; but a winter, and especially that part about the tip of ecomes whiter; the back is of a more ferruginous he hair, which is close in summer, like the deer, omewhat wavy, a little curled, and rough, con- a kind of wool intermixed with hair, and its ealed by a fine woolly down. About the neck ers, as well as under the throat, the hair is con- onger than elsewhere. The female is much ie male, and her horns neither so much curved e as those of the ram.

ing to autumn the Argalis feed in the little val- g the upper regions of the mountains, on the ots of the Alpine plants, and are said to grow As winter approaches, they descend lower, and and other vegetables. They are fond of fre- pots of a saline nature, and will excavate the such places in order to get at the salt.

ia the Argali is chiefly found on the summits of : mountains, exposed to the sun, and free from

woods. They generally travel in small flocks; and seldom produce more than one, or sometimes two, at a birth. The young lamb, when first born, is covered with a soft, grey curling fleece, which gradually changes into hair towards the end of summer.

These animals are very timid; and when closely pursued, they turn and double like a hare, and do not run a progressive course. They ascend rocky mountains with great agility, passing over the narrowest and most dangerous places with perfect safety, like the wild goat.

The males are said to fight frequently, and often precipitate each other down the rocks in their contests. The chase of these creatures is extremely dangerous and difficult, but is a most important object with some of the Asiatics, as this sheep supplies them with a great number of valuable and necessary articles—the skin being used for clothing, and the flesh as food. Pallas informs us, that “the flesh of the lamb is excellent: that of the old animal is good; but more particularly when roasted.”

The horns of the Argali grow to a vast size, and some have been found to measure in their convolutions above two ells in length, and to weigh fifteen pounds each. Sometimes they are found broken off in such a manner that the small animals of the forest creep into the cavity for shelter.

The Argali is known in Corsica by the name of *Mouflon*, but it is so extremely wild as to be seldom taken alive; however, it is shot by the hunters, who lie in ambush for it among the recesses in the mountains. Like many of our animals, the young ones, which are often taken when the parent has been destroyed, are very easily tamed. The Corsican Argali, or *Mouflon* of Buffon, is of a much darker colour than the Asiatic variety.

rious kinds of domestic Sheep, though they posed to have sprung originally from the Argali, found to be very different in different countries. Domestic Sheep* is only to be met with in Eu-



some of the most temperate provinces of Asia, Africa, and if transported into Guinea, loses its hair. It increases there but its flesh has no longer the same taste; it subsist in cold countries.

and, a breed of Sheep is to be found, who have short tails, harsh and thick wool, under which, every animal in the north, is a second lining, of finer, and thicker wool. These animals are sometimes kept in stables, but are generally left to protect themselves in the open plains. Caves are their shelter in a stormy weather; but when they cannot reach caves of shelter, and are involved in falls of snow, they press their heads near each other, with their muzzles towards the ground. In this situation they will survive several days, and hunger will sometimes compel them to gnaw each other's wool. They yield from three to four quarts of milk a day. Their wool is not shorn, but falls off of itself about the end of May, and is then cut off at once, like a skin.

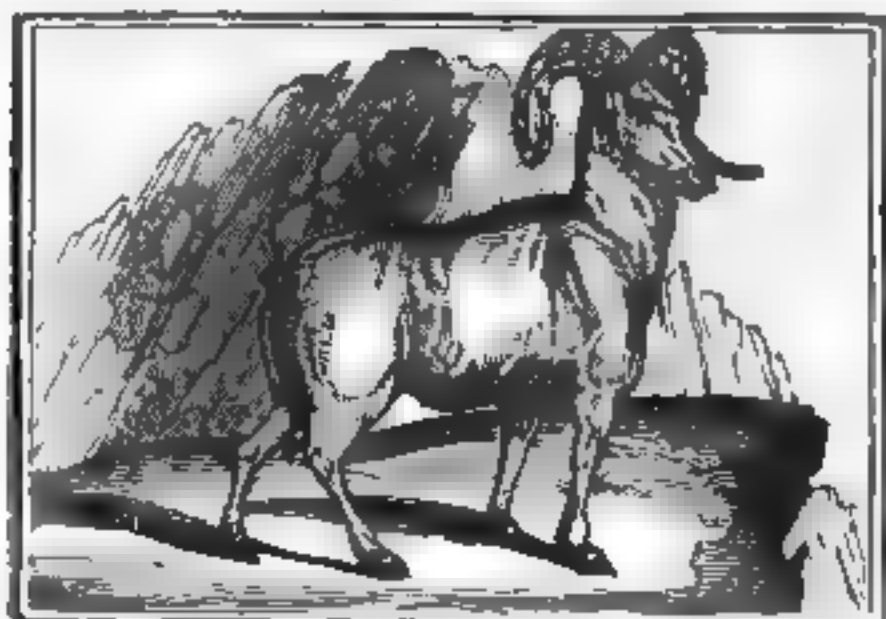
Domestic Sheep of America are all descended from European, imported into this country.

In warm climates, some are covered with wool, others with hair, and a third kind with hair mixed with wool. The first kind of Sheep of those countries is that commonly called the Barbary or Arabian Sheep, which entirely resembles the tame kind, excepting in the tail, which is very much loaded with fat, is often more than a foot broad, and weighs upwards of twenty pounds. As for external appearance, this Sheep has nothing remarkable but the tail, which he carries as if a pillow was fastened to his hinder parts. Among this kind of broad-tailed Sheep, there are some whose tails are so long and heavy, that the shepherds are obliged to fasten a small board with wheels, in order to support them as they walk along. This tail, which is a substance between marrow and fat, is considered as a great delicacy. In the Levant, these Sheep are clothed with a very fine wool. In the hotter countries, as Madagascar and India, they are clothed with hair. The superabundance of fat, which in our Sheep fixes upon the reins, in these Sheep descends under the vertebræ of the tail; the other parts of the body are less charged with it than in our fat Sheep. This variety is to be attributed to the climate, the food, and the care of mankind; for these broad, or long-tailed Sheep, are tame, like those of our country; and they even demand much more care and management. This breed is much more dispersed than ours; they are commonly met with in Tartary, Thibet, Turkey, Persia, Syria, Egypt, Barbary, Ethiopia, and Madagascar; and even as far as the Cape of Good Hope. In Thibet, their fleeces, which are very fine, are manufactured into shawls.

ROCKY MOUNTAIN SHEEP.

THE Rocky Mountain Sheep inhabit the lofty chain of mountains from whence they derive their name, from

northern termination in latitude 68° to about latitude and most likely still further south. They also frequent the elevated and craggy ridges with which the straits between the great mountain range and the Pacific is intersected; but they do not appear to have advanced further to the eastward than to the declivity of the Rocky Mountains, nor are they found in any of the hilly regions nearer to Hudson's Bay. They collect in flocks consisting of from three to thirty, the young rams and ewes herding together during the winter and spring, and the old rams form separate flocks. The ewes bring



in June or July, and then retire with their lambs to most inaccessible heights. Mr. Drummond informs that in the retired parts of the mountains, where the hunters had seldom penetrated, he found no difficulty in reaching the Rocky Mountain Sheep, which there exhibited the simplicity of character so remarkable in the domestic species; but that where they had been often fired at they were exceedingly wild, alarmed their companions by the approach of danger by a hissing noise, and scaled rocks with a speed and agility that baffled pursuit. He lost several that he had mortally wounded, by their refusing to die amongst the secluded precipices. Their fa-

avourite feeding places are grassy knolls, skirted by craggy rocks to which they can retreat, when pursued by dogs or wolves. They are accustomed to pay daily visits to certain caves in the mountains that are encrusted with a saline efflorescence, of which they are fond. These caves are situated in slaty rocks. Mr. Drummond says that the horns of the old rams attain a size so enormous, and curve so much forwards and downwards that they effectually prevent the animal from feeding on level ground. Its flesh is said by those who have fed on it, to be quite delicious when it is in season, far superior to that of any of the deer species which frequent the same quarter, and even exceeding in flavour the finest English mutton.

The missionaries who first discovered the Rocky Mountain Sheep, describe it correctly as possessing the hair and the horns of the ram; and M. Geoffrey has also briefly characterized it as having the head of sheep, with the body of a deer. Several naturalists of eminence have considered it as forming but one species with the argali; and Baron Cuvier supposes that it may have crossed Bhering's Straits on the ice. It resembles the argali indeed, perfectly in its manners, in the form of its body, and in the nature and colour of its hairy coat; but it seems to be a larger animal, and to present a constant difference in the form of curvature in its horns. Whether it may eventually prove to be a distinct species, or merely a permanent variety, no inconvenience can arise from describing it, for the present, under the name already appropriated to it. In the museum of the Linnæan Society, there is a good specimen of a sheep from the mountains of Nepal, which does not appear to differ from the Liberian argali, but seems very distinct from the American one.

Richardson.

THE STREPSICEROS, OR WALLACHIAN SHEEP.



the islands of the Archipelago, and chiefly in the island Candia, there is a breed of Sheep of which Bellon given the figure and description, under the name of *strepliceros*. This Sheep is of the make of our common sheep: it is, like that, clothed with wool, and only differs in it by the horns, which are larger and rise upwards, and are twisted into spirals. The distance between the bases of the Ewe enlarges towards their tops; those of the Ram are parallel. This animal, which is commonly called the Wallachian Sheep, is frequent in Austria and Hungary, where its name is Zackl.

THE AFRICAN SHEEP.

In the hottest countries of Africa and India, there is a breed of large Sheep, which has rough hair, short horns, long ears, and a kind of tuft under the tail. Leo Afri- nus, and Marmol, call it *adamain*; and it is known to naturalists by the names of the *Senegal Ram*, the *Senegal Ram*, and the *Angola Sheep*, &c. He is tame like the European, and, like him, subject to variety. These, though

different in themselves by particular characters, resemble each other so much in other respects, that we can scarcely doubt but they are of the same kind.



A specimen of the male African Sheep is now in the Tower menagerie, to which it was presented about six years ago by Lord Liverpool. In temper it is extremely mild; but it is an uncouth looking creature. It is high on the legs, narrow in the loins, and its coat is rough and shaggy. Its horns are remarkably small, and within their curve the ears are enclosed. Whenever the ears escape from this seeming confinement, the animal exhibits much uneasiness; and, difficult as it is for him to replace them, he never rests till it is accomplished. On his back and sides he is nearly black; the shoulders are of a reddish brown; the posterior part of the body, the haunches, the hind legs, the tail, the nose, and also the ears, which are rather large, are white. There is likewise a white spot over each eye.

THE FOUR-HORNED SHEEP.



of the curious modifications produced by cultivation the domesticated Sheep consists in the augmentation of the number of its horns ; two, three, or even four supplementary appendages of this description being occasionally procured in addition to the usual number. Under these circumstances, the additional horns usually occupy the upper and fore part of the head, and are of a more slender form and take a more upright direction than the others, approaching in character to those of the goats, while the true horns retain more or less of the spiral curve that distinguishes those of the sheep. There exists a strong tendency to the hereditary propagation of this monstrosity,

which is extremely frequent in the Asiatic races, but is also met with in a breed that is common in the north of Europe, and is said to have been originally derived from Iceland, and the Feroe islands. In the latter case it is unconnected with any other anomaly; but in the flocks of the nomad hordes of Tartary it is usually combined with an enlargement of the tail and adjacent parts, by the deposition of fat, frequently to an enormous extent. Specimens of both varieties, separate and combined, have formed part of the Society's Collection at the farm on Kingston Hill, to which most of the domesticated animals were removed during the summer of 1829.

The specimen figured is remarkable only for the number of its horns. The lateral or true horns rise from the usual point of attachment, and describe a spiral curve round the animal's ears. The accessory horns, two in number, take their origin more internally, and between the others, and pass almost directly upwards, inclining, as they advance, in a direction forwards and outwards.

In considering, therefore, according to the difference of climate, the Sheep which are purely tame, we find,

1. The Sheep of the north, who have many horns, whose wool is rough and very thick; and the Sheep of the island of Gothland, Muscovy, and many other parts of the north of Europe, whose wool is thick, and who appear to be of the same breed.

2. Our Sheep, whose wool is very good and fine in the mild climates of Spain and Persia, but in hot countries changes to a rough hair. We have already observed, in conformity in this influence of the climates of Spain and Khorasan, a province of Persia, on the hair of cats, rabbits, hares, &c. It acts in the same manner upon the wool of Sheep, which is very fine in Spain, and still finer in the north part of Persia.

The broad-tailed Sheep, whose wool is also very fine operate countries, such as Persia, Syria, and Egypt ; which, in hot countries, changes into a hair more or rough.

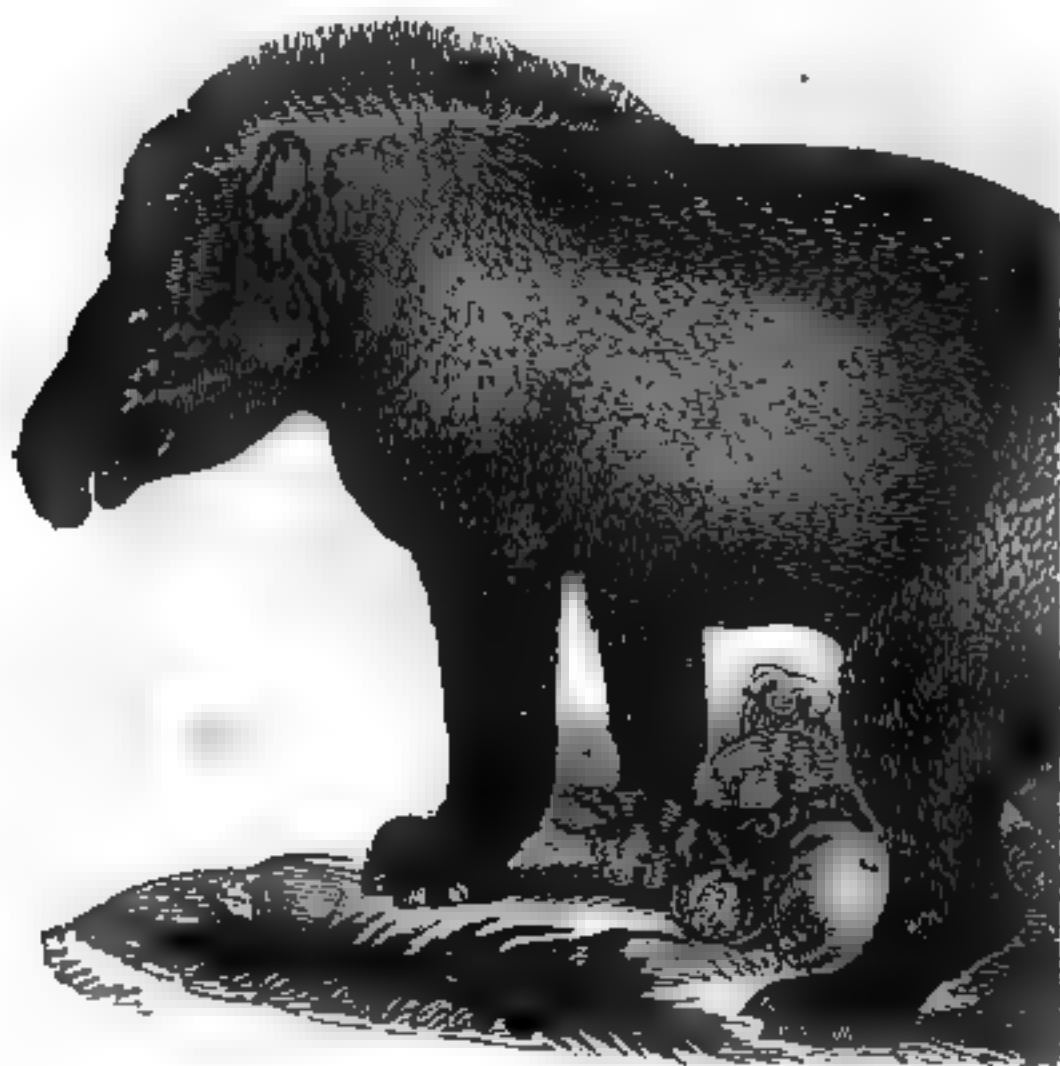
The Sheep *strepsiceros*, or Cretan Sheep, who resembles both in wool and make, excepting the horns, are straight and furrowed.

The *adimain*, or the great Sheep of Senegal and In which in no part is covered with wool, but, on the contrary, is clothed with hair, which is longer or shorter, coarser or smoother, according to the heat of the climate. These Sheep are only varieties of one and the same species and certainly would unite one with the other, since the species whose species is further distant, procreates with ours, as we are assured from experience. But none of these tame Sheep have the characters of an original species.

THE TAPIR, OR THE ANTA.

Tapir is of the size of a small cow, or zebu, but without horns, and with a short naked tail ; the legs are short and thick, and the feet have small black hoofs. The body is thick and clumsy, and the back somewhat arched, and the colour is of a dusky or brownish colour. On the short neck is a kind of bristly mane, which, near the head, is six inch and a half in length. His head is of a tolerable size with roundish erect ears, and small eyes, and the snout terminates in a kind of proboscis, which can be extended or contracted at the will of the animal. The latter is used in feeding, to grasp its food and convey it to the mouth, in the same way that the rhinoceros applies its trunk ; and in this are also contained the organs of respiration. He has ten incisive teeth, and ten grinders, in the lower jaw ; a character which separates him entirely from

the ox, and other ruminating animals. His skin is so hard as to be almost impenetrable to a bullet, for which reason the Indians make shields of it.



The Tapir seldom stirs out but in the night, and is chiefly to be found in marshes, and seldom goes to the borders of rivers or lakes. He swims and swims with singular facility. When he is threatened, or wounded, he plunges into the water, and remains there till he has got to a great distance before he reappears. His customs, which he has in common with the hippopotamus, have made some naturalists imagine him to be of the same species; but he differs as much from him in nature as he is distant from him in climate. To be assured of this, needs no more than to compare the description

ed, with that of the hippopotamus. Although the abits the water, he does not feed upon fish; and, his mouth is armed with twenty sharp and inci- he is not carnivorous: he lives upon sugar-sses, the leaves of shrubs, and various kinds of does not make use of what Nature has armed against other animals. He is of a mild and timid d flies from every attack or danger: when, how- cut off from retreat, he makes a vigorous de-nt dogs and men. Its usual attitude is that of its rump like a dog; and its voice is a kind of The flesh is wholesome food. It may be tamed, n very gentle and docile. This animal is com-nd in Brazil, Paraguay, Guiana, and in all the South America, from the extremity of Chili to

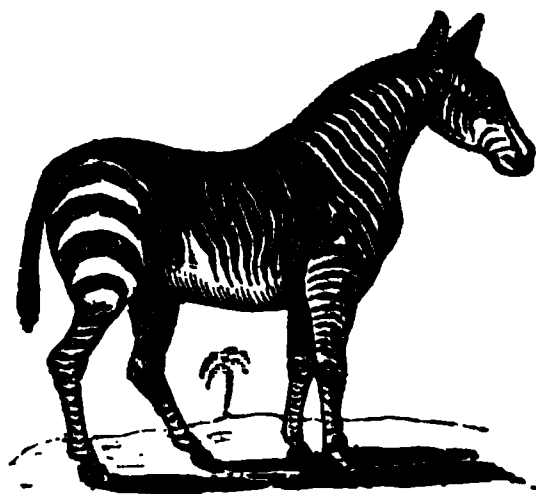
es of Tapir, which has recently been discovered, nmon in the island of Sumatra and the forests a. Its body is of a dirty white, while the head, ail are of a deep black. This species has no l its proboscis is from seven to eight inches

the numerous fossil remains of a former world fragments of Tapirs of enormous size. One of act species, the Gigantic Tapir, must have been equal to the elephant in magnitude.

THE ZEBRA, OR DOUW,

s, the handsomest and most elegantly clothed of eds. He has the shape and graces of the horse, ss of the stag, and a striped robe of black and nately disposed with so much regularity and that it seems as if Nature had made use of nd compass to paint it. These alternate bands

of black and white are so much the more singular, as they are straight, parallel, and very exactly divided, like a striped stuff; and as they, in other parts, extend themselves not only over the body, but over the head, the thighs, the legs, and even the ears and the tail; so that, at a distance, this animal appears as if he was surrounded with little fillets, which some person had disposed, in a regular manner, over every part of the body. In the females, these bands are alternately black and white; in the male, they are brown and yellow, but always of a lively and brilliant mixture, upon a short, fine, and thick hair; the lustre of which still more increases the beauty of the colour.



The Zebra is, in general, less than the horse, and larger than the ass; and, although it has often been compared to those two animals, and called the *Wild Horse* and the *Striped Ass*, it is a copy neither of the one nor the other, and might rather be called their model, if all was not equally original in nature, and if every species had not an equal right to creation.

The Zebra is not the animal the ancients have indicated under the name *onagra*. There exists in the Levant, the eastern parts of Asia, and in the northern parts of Africa, a beautiful race of asses, who, like the finest horses, are natives of Arabia. This race differs from the com-

by the size of the body, the slenderness of the legs, the lustre of the hair; they are of a uniform, but composed of a fine mouse colour, with a black cross upon the neck and the shoulders; and sometimes they are of a gray colour, with a flaxen cross. The Zebra is of a different climate from the onagra, and is only to be met with in the most eastern and the most southern parts of Africa, from Ethiopia to the Cape of Good Hope, hence to Congo; it exists neither in Europe, Asia, or America, nor even in all the northern parts of Africa: which some travellers tell us they have seen at the islands have been transported thither from Africa; those others are recounted to have seen in Persia, and in India, have been brought from Ethiopia; and, in short, that we have seen in Europe are almost all from the Cape of Good Hope. This point of Africa is their true native country, and where the Dutch have employed all their care to subject them and to render them tame without having been hitherto able to succeed. That we have seen, and which has served for the subject of my description, was very wild when he arrived at the menagerie in France; and he was never entirely tamed: nevertheless, he has been broken for the saddle; here are precautions necessary: two men held the head, while a third was upon him. His mouth is very hard; his ears so sensible, that he winces whenever any one goes to touch them. He was restive, like a vicious horse, and obstinate as a mule; but, perhaps, the wild onager and the onagra are not less intractable; and there is reason to believe, that if the Zebra was accustomed to gentleness and tameness from his earliest years, he would become as mild as the ass and the horse, and might be introduced in their room.

The Zebra is chiefly found in the southern parts of Africa—often seen near the Cape of Good Hope; and a pen-

alty of fifty rix-dollars is inflicted on any person who shoots one of them. Such of them as are caught alive are presented to the governor. Several have been brought to England, but, except in one instance, they have all displayed great wildness, and even ferocity. The exception was in that which was burnt some years ago at Exeter 'Change. It would allow young children to be put upon its back, and was once ridden from the Lyceum to Pimlico; but it was bred and reared in Portugal, from parents half reclaimed. In several other cases, Zebras have attempted to injure spectators, and have not even spared their keepers. The voice of this creature is thought to have a distant resemblance to the sound of a post horn.*

THE ZEBRA OF THE PLAINS.

THE Zebra which we have just described is confined to the mountains; the subject of the present article inhabits the flat parts near the Cape. Till very recently, the difference between them was not accurately understood. "The ground colour of its whole body (says Mr. Bennett) is white, interrupted by a regular series of broad black stripes extending from the back across the sides, with narrower and fainter ones intervening between each. Over the haunches and shoulders these stripes form a kind of bifurcation, between the divisions of which there are a few transverse lines of the same colour; but these suddenly and abruptly cease, and are not continued on the legs, which are perfectly white. Along the back there is a narrow longitudinal line, bordered on each side with white. The mane is throughout broadly and deeply tipped with black, and is made by a continuation of the transverse

* This species of Zebra (which is that commonly described by naturalists) is called Donu by the Hottentots; it is mentioned by Mr. Burchell under the name of the wild Pard.

s of the neck. The lines of the face are narrow and stiffly regular; from the centre of the forehead they run downwards over the eyes; along the front of the face they are longitudinal, the outer ones having a slight outward curve; and on the sides they form broader transverse bands. From the confluence of these bands on the vicinity of the muzzle, the nose, and the lower lip, those lines become of a nearly uniform blackish brown. The rest is white: there is no longitudinal ventral line: and a black patch occupies the posterior part of the ear, to the tip. The hoofs are moderately large, deep in front, shallow behind, and much expanded at their margin."



Illustration of a zebra's hindquarters and tail.

The subject of the present article, which has now been at two years in the menagerie, will suffer a boy to ride about the yard, and is frequently allowed to run loose through the Tower, with a man by her side, whom she will not attempt to quit, except to run to the canteen, where she is occasionally indulged with a draught of ale, which she is particularly fond of.

WILD ASS AND QUAGGA.



WE have already noticed the domestic ass in Vol. I; we now add some particulars respecting the **WILD ASS**. In its natural or wild state it exhibits an appearance very far superior both in point of beauty and vivacity to the horse. It is a native of Asia, living, like the rest of this genus, in a gregarious manner. It chiefly occurs in the dry and mountainous deserts of Tartary, and in the southern parts of India and Persia. It is frequently spoken of as being met with by travellers in Africa; but the Quagga which abounds in Southern Africa, and is sometimes called the Wild Ass, has been no doubt confounded with this animal. The color of the Wild Ass is gray, or brownish yellow, with a brown dorsal stripe, and one or two bands across the shoulders.

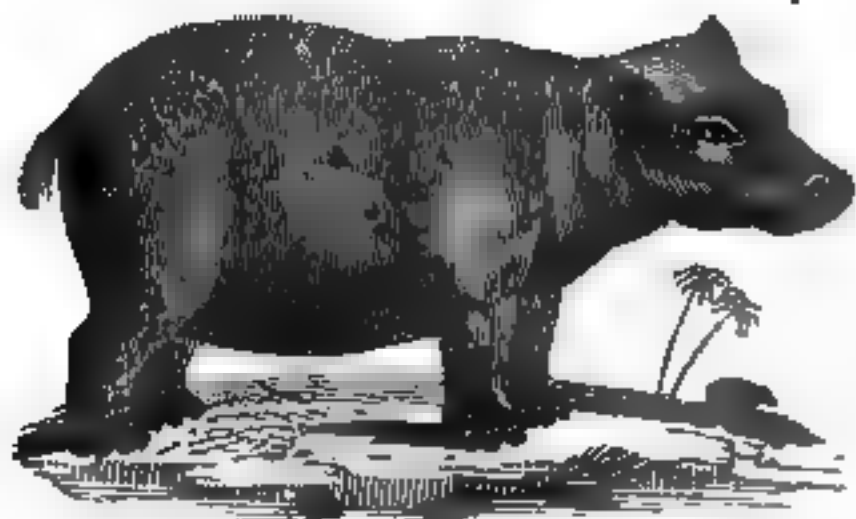
The food of this animal consists chiefly of saline or bitter plants. It is also fond of salt or brackish water. The manners of the Wild Ass resemble those of the wild horse. They assemble in troops, under the conduct of a leader or sentinel, and are extremely shy and vigilant, and, like the former animals, dart off with the utmost rapidity on the sight of mankind. They have been at all times celebrated for their swiftness. Their voice resembles that of the

stic ass, but is somewhat shriller. From this animal, domestic ass has been gradually derived.

3 QUAGGA, which till lately has been confounded with zebra, is now acknowledged as a distinct species, much like the former, but marked with fewer and larger spots, which are of a browner colour than in the zebra, and are chiefly disposed on the fore parts of the animal; the hind parts are rather spotted than striped. The general colour also of the Quagga is of a ferruginous tinge, especially on the the thighs and back. It is of a milder temper than the zebra, and is said to have been successfully used by some of the Dutch colonists at the Cape, in the manner of a horse, for draught, &c. It inhabits the same parts of Africa as the zebra, but is found in separate herds, never associating with that species. The cut represents one of these animals.

THE HIPPOPOTAMUS.

ALTHOUGH this animal has been celebrated from the earliest ages, it was, notwithstanding, but imperfectly known to the ancients. It was only towards the sixteenth century that we had some precise indications on the subject.



By comparing the descriptions which we have observed from different travellers, the Hippopotamus appears to be an animal whose body is longer and thicker than that of the

rhinoceros ; but his fore legs are much shorter. His head is short, and thick in proportion to the body. He has no horns, neither on the nose, like the rhinoceros, nor on the head, like ruminating animals. His cry, when hurt, approaches as near to the neighing of the horse, as the howling of the buffalo ; but his usual voice resembles the neighing of a horse, from which, however, he differs in every other respect ; and this fact, we may presume, has been the sole reason for giving him the name of *Hippopotamus* or *River Horse* ; as the howling of the lynx, which resembles that of the wolf, has occasioned him to be called the *Stag-like Wolf*. The incisive teeth of the *Hippopotamus*, and especially the two canine teeth of the lower jaw, are very long, very strong, and of so hard a substance, that they strike fire with a piece of iron. This is probably what has given rise to the fable of the ancients, who have reported that the *Hippopotamus* vomited fire. These canine teeth of this animal are white, so clear and so hard that they are preferable to ivory, for making artificial teeth. The molares are square, or rather longer on one side than the other, nearly like the grinders of a man, and so thick, that a single one weighs more than three pounds. The largest of the incisive, or the canine teeth, are twelve, and even sixteen inches in length, and sometimes weigh twelve or thirteen pounds each. The skin is in some parts two inches thick ; and the Africans cut it into whips or thongs, which, in consequence of their softness and pliability, they prefer to those procured from the rhinoceros' hide.

The male *Hippopotamus* is about six feet nine inches long, from the extremity of the muzzle to the beginning of the tail ; fifteen feet in circumference, and six feet and a half in height. His legs are about two feet ten inches long, the length of the head, three feet and a half, and eight feet and a half in circumference ; and the width of the mouth two feet four inches. It, however, sometimes acquires

of greater magnitude. In the south of Africa, M. le
 ant killed one which measured ten feet seven inches
 length, and about nine feet in circumference.
 He is powerfully armed, with a prodigious strength of
 arm, he might render himself formidable to every animal;
 he is naturally gentle, and appears never to be the ag-
 gressor, except when annoyed or wounded. It has been
 repeatedly stated, that he commonly moves slowly on
 land, but, on the contrary, when he has been injured, he
 has been known to pursue persons for several hours, who
 escaped with great difficulty. He swims quicker than he
 pursues the fish, and makes them his prey. Three
 or four of them are often seen at the bottom of a river,
 near some cataract, forming a kind of line, and seizing
 such fish as are forced down by the violence of the
 current. He delights much in the water, and stays there
 willingly as upon land; notwithstanding which, he has
 membranes between his toes, like the beaver and otter,
 and it is plain, that the great ease with which he swims,
 is owing to the great capacity of his body, which on-
 takes bulk for bulk, and is nearly of an equal weight
 to the water. Besides, he remains a long time under
 water, and walks at the bottom as well as he does in the
 air. When he quits it to graze upon land, he eats
 reed-canes, rushes, millet, rice, roots, &c. of which he
 consumes and destroys a great quantity, and does much in-
 jury to cultivated lands; but, as he is more timid upon
 land than in the water, he is very easily driven away;
 as his legs are short, he cannot save himself well
 enough, if he is far from any water. His resource, when
 he finds himself in danger, is to plunge himself into the
 water, and go a great distance before he reappears. He
 only retreats from his pursuers; but if he is wound-
 ed, he becomes irritated, and immediately facing about with

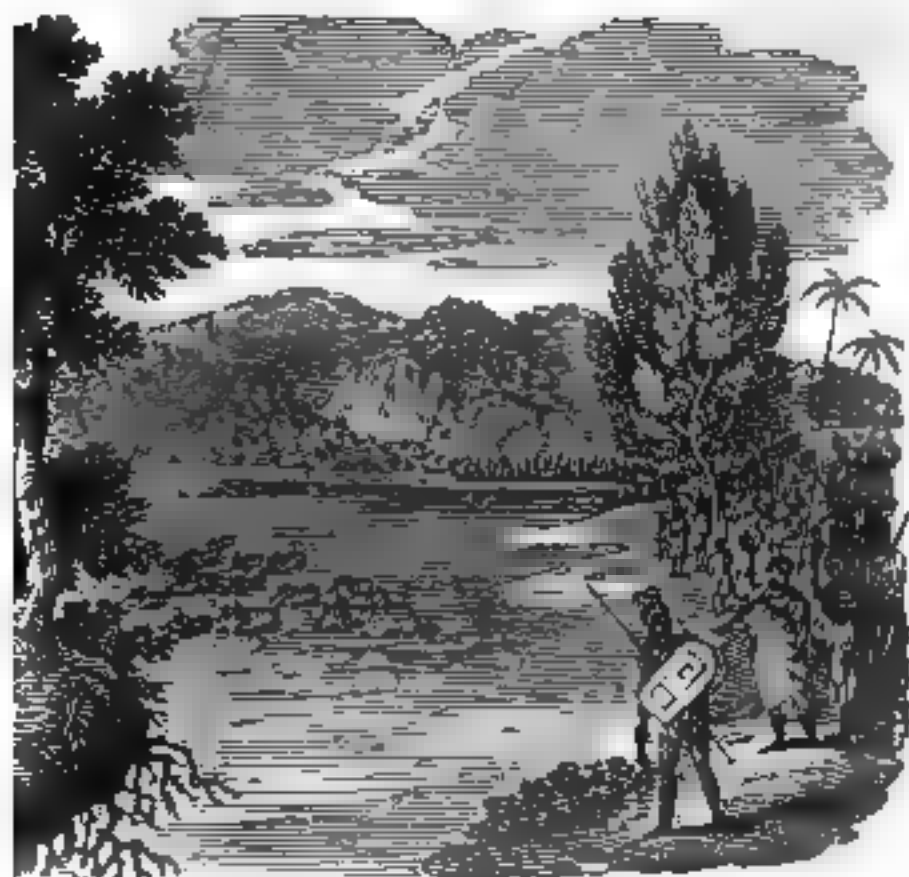
great fury, rushes against the boats, seizes them with his teeth, often tears pieces out of them, and sometime swallows them under water. "I have seen," says a traveller, "a Hippopotamus open his mouth, fix one tooth on the first plank of a boat and another to the second plank under the keel, four feet distant from each other, pierce the side of the boat and through, and in this manner sink the boat to the bottom. I have seen another, lying by the side of the shore, upon which the waves had driven a shallop laden with goods, which remained upon his back dry, and when again washed back by another wave, without the shallop appearing to have received the least injury. When the Negroes go a fishing in their canoes, and meet a Hippopotamus, they throw fish to him; and then he goes on, without disturbing their fishery any more. He can only rest when he can rest himself against the earth; when he floats in the water, he can only bite. Once our shallop was near shore, I saw one of them get under it, lift it above water upon his back, and swim off with six men who were in it; but fortunately they received no hurt."

"We dare not," says another traveller, "irritate a Hippopotamus in the water, since an adventure happened which was near proving fatal to three men. They were going in a small canoe, to kill one in a river where the water was about eight or ten feet deep. After they had covered him walking at the bottom, according to their custom, they wounded him with a long lance, which so much enraged him, that he rose immediately to the surface of the water, regarded them with a terrible look, opened his mouth, and, at one bite, took a great piece out of the bottom of the canoe, and had very nearly overturned it; he then replunged, almost directly, to the bottom of the water."

These animals are only numerous in some parts of the world: it even appears, that the species is confined to

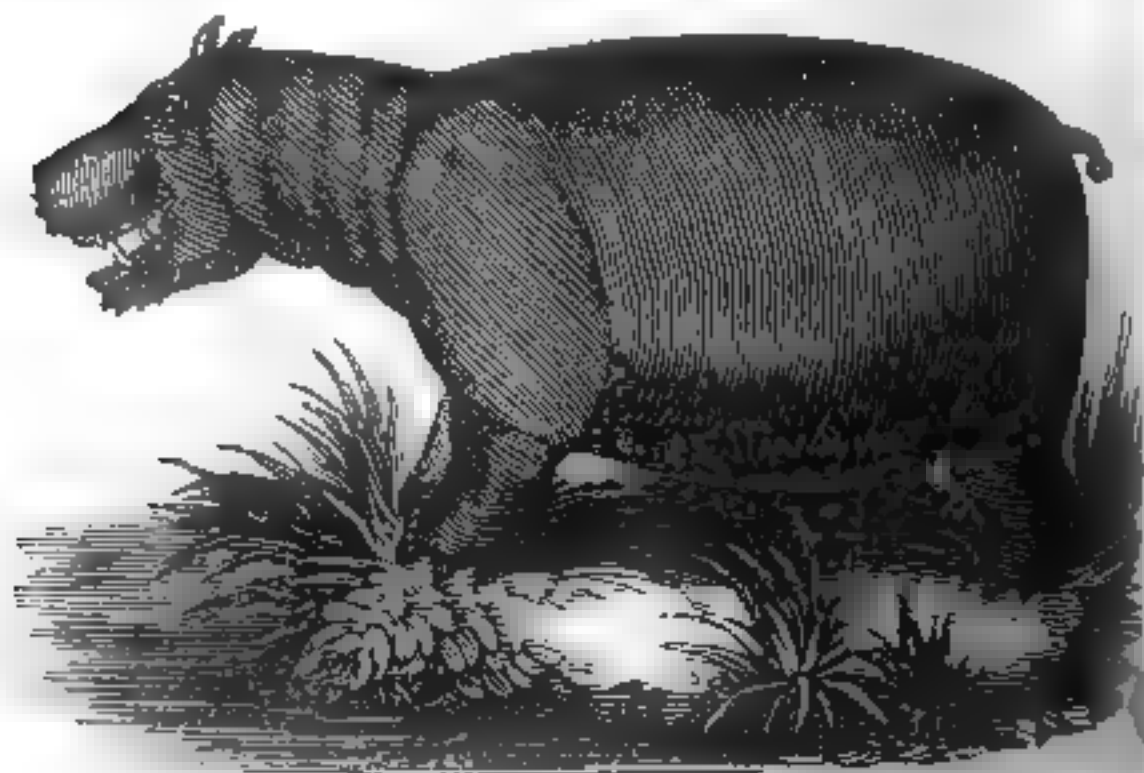
limates, and seldom to be met with but in the
rica. Dutch travellers say that they bear three
og ones; but this appears very suspicious, as
otamus is of an enormous bulk: he is in the
elephant, the rhinoceros, the whale, and all
animals, who bring forth but one; and this an-
rs more certain than all the testimonies that
exhibited. The female brings forth her young
and the calf, at the instant when it comes into
vill fly to the water for shelter if pursued; a
e which Thunberg notices as a remarkable in-
re instinct. Major Denham furnishes us with
g amusing account:—

ntended this evening to have killed an Hippo-
animal which exists in great numbers in the



e border of which we were encamped; but a
ler-storm, to our great disappointment, prevent-
assing so novel a species of sport. The flesh
d a great delicacy. On the morrow we had a

full opportunity of convincing ourselves that these uncouth and stupendous animals are very sensibly attracted by musical sounds, even though they should not be of the softest kind: as we passed along the borders of Lake Muggaby at sunrise, they followed the drums of the different chiefs the whole length of the water, sometimes approaching so close to the shore, that the water they spouted from their mouths, reached the persons who were passing along the banks. I counted fifteen at one time sporting on the surface, and my servant Columbus shot one of them in the head, when he gave so loud a roar, as he buried himself in the lake, that all the others disappeared in an instant."



The preceding cut is copied from Thompson's Travels in Southern Africa, from which we make the following extract. "The Hippopotami are numerous in many parts of this river, (the Gariep, and are occasionally caught by the natives, by means of huge pitfalls dug in the paths frequented by them, when they issue from the floods, to browse on the wooded banks. The capture of one of those enormous animals must be an event of rejoicing to a whole horde of half starved Bushmen or Koranas, sufficient to sustain

and heaviness for months to come. The Hippo-though timid on shore, is sometimes a dangerous animal in the water. Mr. Moffat informed me, that once he was passing Read's Drift, a Hottentot of his party bit in two by one of these monstrous animals." It appears from the accounts of travellers that the numbers of this animal are very great in nearly all the lakes and rivers of Africa, from the Cape of Good Hope to 15° latitude.

THE AXIS DEER.



animal being only known by the vague names of *Elk* of *Sardinia*, and the *Deer* of the *Ganges*, we thought it necessary to preserve the name which *Bergius* gave to him, and which he borrowed from *Pliny*.

The Axis is of the small number of ruminating animals who wear horns, like the stag. He has the shape and swiftness of the fallow-deer; but what distinguishes him from the stag and fallow-deer is, that his body is marked with white spots, elegantly disposed, and separated one from another, and that he is a native of hot countries (Hindustan, and particularly Bengal); while the stag and deer have their coat of a uniform colour, and are to be met with in greater numbers, in cold countries and temperate regions, than in hot climates.

The gentlemen of the Academy of Sciences have only given him the name of the *Sardinian Hind*, because, very probably, they received that name from the royal menagerie; but there is nothing indicated of this animal's being native of Sardinia; no author has ever mentioned, that he exists in that island like a wild animal; but, on the contrary, we see, by examining authors, that he is found in the hottest countries of Asia.

We have already remarked, that there is no species which approaches so near to another, as that of the deer to the stag: nevertheless, the Axis appears to be an intermediate mixture between the two. He resembles the deer in the size of his body, the length of his tail, and his coat, which is the same during his whole life: he only essentially differs from that animal in his horns, which nearly resemble those of the stag. The Axis, therefore, is possibly be only a variety depending on the climate, not a different species from the deer; for, although he is a native of the hottest countries of Asia, he supports easily multiplies in, that of Europe. There are many of them in the menagerie of Versailles; but it has yet been observed, that they mix either with the deer with the stags; and this is the cause of our present that it was not a variety of one or the other, but a p

and mediate species between the two. It is a very d and timid animal.

THE ELK AND THE REIN-DEER OF EUROPE.



THOUGH the Elk and the Rein-deer are two animals of different species, we have thought proper to unite them, since it is scarcely possible to write the history of the without borrowing a great deal from the other.

It appears by positive testimonies, that the Rein-deer formerly existed in France, at least in the high mountains, as the Pyrenean, and, since that time, has been destroyed like the stags, who were heretofore common in that country.* It is certain, that the Rein-deer is now ac-

This assertion has recently been discovered to be incorrect. It is based on a misprint in a *Treatise on Hunting*, by Gaston de Foix. The printed copies say that the writer had seen the Rein-deer in *Normandie* and *Picardie*, that is, in Savoy and Bearn; but the MS., which M. Cuvier has since consulted, says "*Norvège* and *Suède*," which means Norway and Sweden.

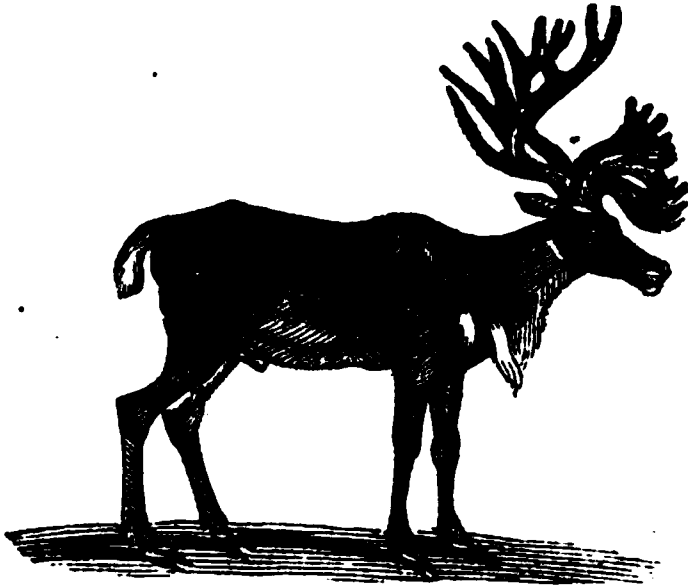
tually to be found only in the most northern countries; we also know, that the climate of France was formerly much more damp and cold, occasioned by the number of woods and morasses, which are no longer to be seen. Gaul, under the same latitude as Canada, was, two thousand years ago, what Canada is at this present time; that is, a climate cold enough for those animals to live in.

The Elk and the Rein-deer, then, are only found in the northern countries; the Elk on this, and the Rein-deer on the other side of the polar circle in Europe and Asia. We find them in America,* in the highest latitudes, because the cold is greater there than in Europe. The Rein-deer can bear even the most excessive cold. He is found in Spitsbergen; he is common in Greenland, and in the most northern parts of Lapland: thus also, in the most northern parts of Asia, the Elk does not approach so near the pole; he inhabits Norway, Sweden, Poland, Russia, and all the provinces of Siberia and Tartary, with the north of China. We again find him by the name of *original*, and the Rein-deer under that of *caribou*, in Canada, and in all the northern parts of America.

We may form a sufficiently just idea of the Elk and the Rein-deer, by comparing them with the stag. The Elk is larger, stronger, and stands more erect upon his legs; his neck is shorter, his hair longer, and his antlers wider and heavier than those of the stag. The Rein-deer is shorter and more squat; his legs are shorter and thicker, and his feet wider; the hair very thickly furnished, and his antlers much longer, and divided into a greater number of branches, with flat terminations; while those of the Elk are only (if the expression is allowed) cut or broached at the edges; both have long hair under the neck, and both

* See article Moose.

short tails, and ears much larger than the stag ; they leap or bound like the roe-bucks ; but their pace is of trot, so easy and quick, that they go over almost h ground in the same time as the stags do, without so much fatigued ; for they can trot in this manner



lay or two. The Rein-deer lives upon the mountain-stag only dwells in low lands and damp forests ; so in herds like the stags, and both can be easily but the Rein-deer with greater ease than the Elk ; t, like the stag, has not lost his liberty, while the deer is become domestic among the enlightened part of mankind. The Laplanders have no other beast. In that climate, which only receives the oblique rays of the sun, where there is a season of night as well as day, the snow covers the earth from the beginning of autumn to the end of spring, and where the verdure of the forest consists in the bramble, juniper, and moss, could we form any idea but of famine ? The horse, the ox, the sheep, all our useful animals, find no subsistence there, nor can they resist the rigour of the cold : he has been obliged to turn to among the inhabitants of the forest, for the least and most profitable animals. The Laplanders have what we ourselves should do, if we were to lose our

cattle: we should then be obliged to tame the stags and the roe-bucks of the forests, to supply their place; and I am persuaded we should gain our point, and we should presently learn to draw as much utility from them as the Laplanders do from the Rein-deer. We ought to be sensible, by this example, how far Nature has extended her liberality toward us. We do not make use of all the riches which she offers us: the fund is much more immense than we imagine. She has bestowed on us the horse, the ox, the sheep, and all our other domestic animals, to serve us, to feed us, and to clothe us; and she has, besides, species in reserve, which would be able to supply this defect, and which would only require us to subject them, and to make them useful to our wants. Man does not sufficiently know what Nature can do, nor what can be done with her. Instead of seeking for what he does not know, he likes better to abuse her in what he does know.



In comparing the advantages which the Laplanders derive from the tame Rein-deer, with those which we derive

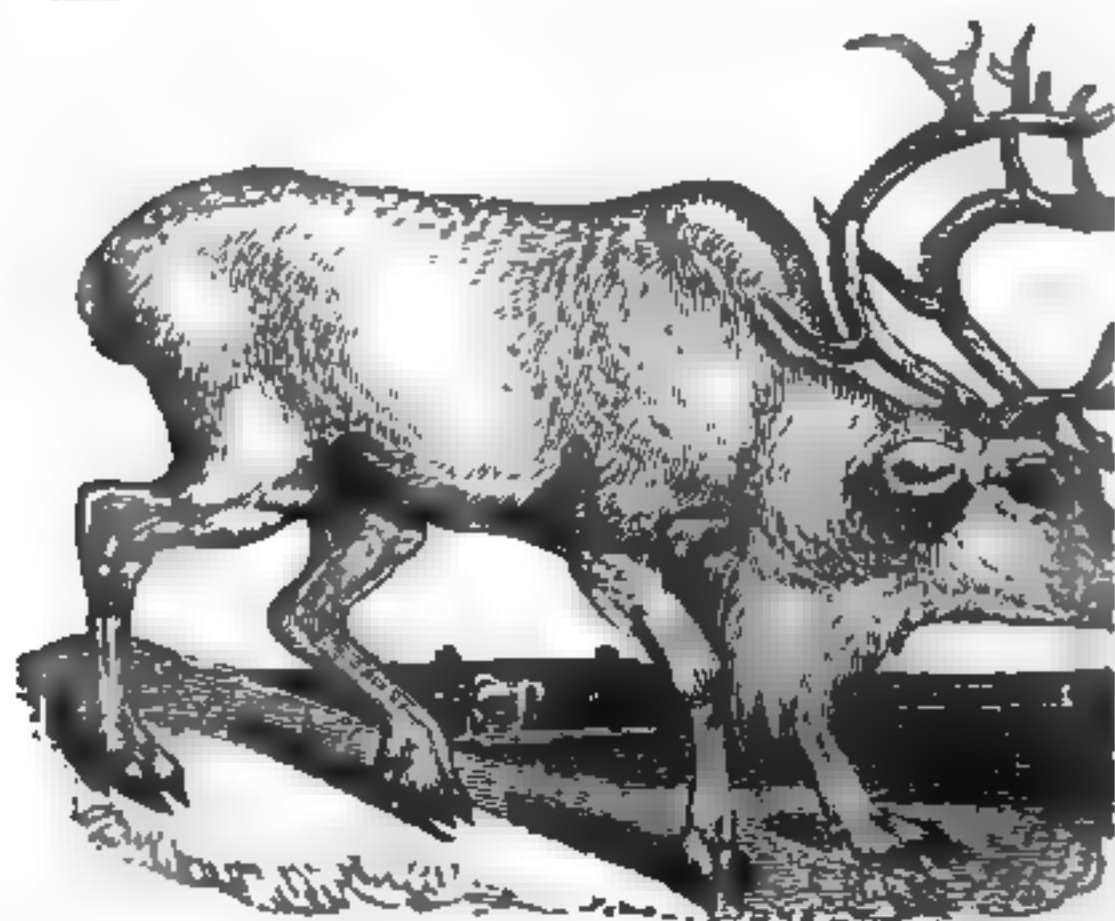
our domestic animals, we shall see that this animal is h two or three of them: he is used, as horses are, to sledges and other carriages; he travels with great d and swiftness; he easily goes a hundred miles a and runs with as much certainty upon frozen snow as the mossy down. The female affords milk more substantial, and more nourishing than that of the cow; the is very good to eat; his coat makes an excellent fur; his dressed hide becomes a very supple and very durable leather. Spoons are also made of his bones, bows and thread of his tendons, and glue is manufactured his horns. Thus the Rein-deer alone affords all that derive from the horse, the ox, and the sheep.

With from three to five hundred Deer, a Laplander can in tolerable comfort; with two hundred he may, by management, contrive to get on; but with a hundred his existence is precarious; and with only fifty, he must be content to be the partner, or rather servant, of some more fortunate individual.

The antlers of the Rein-deer are larger, more extended, divided into a greater number of branches than those of the stag. His food, in the winter season, is a white lichen (the *lichen rangeferinus*), which he finds under the snow, and which he ploughs up with his horns, or digs up with his feet. When the snow is too deep for them to find this article, they resort to another lichen that hangs from the trees; and in severe seasons the boors often cut down some thousands of these trees to furnish subsistence for their herds.

In summer, he lives upon the buds and leaves of trees, rather than herbs, which his forward-spreading antlers will permit him to browse on with facility. He runs upon snow, and sinks but little, on account of his broad feet. These animals are mild; and they bring them up in herds,

which turns out greatly to the profit of their keepers. richest Laplanders have herds of four or five hundred of Rein-deer, and the poor have ten or twelve. They lead them to pasture, and re-lead them to the stable, or drive them up in parks during the night, to shelter them from outrages of the wolves. If they attempt to change climate, they die in a short time. Formerly Steno, king of Sweden, sent six to Frederick, duke of Holstein; of later date, in 1533, Gustavus, king of Sweden, had brought over to Prussia, both males and females: all perished, without producing any young, either in a domestic or in a free state. Many fruitless attempts have been made to introduce them into England. There is, however, now present in the Zoological Gardens one specimen, which was placed there in 1828, and appears to be still in a flourishing condition. The following figure represents this animal.



The Rein-deers have outwardly many things in common with the stags; and the formation of the interior of

same. The Rein-deer sheds his antlers every year like the stag, and, like him, is very good venison. The males, both of the one and of the other species, go eight years with young, and produce but one at a birth. The young Rein-deer follows his mother during the first two or three years, and does not attain his growth till about the age of four or five. It is at this age that they begin to use and exercise them for labour.

There are both wild and tame Rein-deer in Lapland. At the time the heat is upon the tame females, they sometimes let them loose, to seek the wild males; and, as these wild males are more robust, and stronger than the tame, the males of this mixture are preferred for harness. These tame Rein-deer are not so gentle as the others; for they not only sometimes refuse to obey those who guide them, but often turn furiously upon them, and attack them with their feet, so that there is no other resource than to cover themselves from their rage by the sledge, until the fury of the beast is subsided. This sledge is so light, that they easily manage it, and cover themselves with it. The bottom of it is lined with the skins of young Rein-deers; the hairy side is turned against the snow, so that the sledge goes easily forwards, and recoils less on the mountains. The harness of the Rein-deer is only a thong of the hide, the hairs remaining on it, round the neck, whence it extends towards the breast, passes under the belly between the legs, and is fastened to a hole which is in the front part of the sledge. The Laplander has only a single rein by which to guide the animal, and which he throws alternately upon the back of the beast, sometimes on one side and sometimes on the other, according as he would direct him to the right or to the left. They can travel ten or twelve miles an hour; and it is not uncommon for them to make journeys of a hundred and fifty miles in nineteen hours;

at their utmost speed, and for a short time they can accomplish nearly twenty miles within the hour ; but the quicker the method of travelling is, the more it is inconvenient a person must be well accustomed to it, and travel often, to be able to direct the sledge, and prevent it from turning



over. They can draw three hundred pounds, but the Laplanders usually limit the burthen to two hundred and fifty pounds.

The Rein-deers are all very spirited, and very difficult to manage ; they therefore make use only of those which are castrated, among which they choose the liveliest and the swiftest to draw their sledges, and the more heavy to travel with their provision and baggage at a slower pace. These animals are troubled with an insect, called the reindeer fly, during the summer season, which, burrowing under their skins the preceding summer, deposit their eggs ; so that the skin of the Rein-deer is often so filled with such holes, that an incurable disorder is brought on. So far

able are the attacks of these insects, that in June, July August, the Laplander is compelled to migrate with Deer from the forests to the mountains; without which action he would run the risk of losing the major part of his herd.



The herds of this species require a great deal of care.

Rein-deer are subject to elope, and voluntarily renew their natural liberty: they must be closely attended, and constantly watched; they cannot lead them to pasture but to open places; and, in case the herd are numerous, they need of many persons to guard them, to recollect them, to run after them, if they stray. They are all marked, so they may be known again; for it often happens that they stray in the woods, or mix among another herd. In Lapland, the Laplanders are continually occupied in the care of their Rein-deer, which constitute all their wealth.

The female Rein-deer is the only animal of this species the horns of which fall off; and the only one

also which sheds his horns, and renews them again, notwithstanding his castration ; for, in stags, fallow-deer, and roe-bucks, who have undergone this operation, the head of the animal remains always in the same state in which it was the moment it was castrated.

Another singularity, which we must not omit, and which is common to the Rein-deer and the Elk, is, that when these animals run, or quicken their pace, their hoofs, at every step, make a crackling noise, as if all the joints of their legs were disjoining. It is this noise, or perhaps the scent, which informs the wolves of their approach, who run out to meet and seize them ; and, if the wolves are many in number, they very often conquer. The Rein-deer is able to defend himself against a single wolf, not as may be imagined, with his horns (for they are rather of a disservice to him than of use), but with his fore feet which are very strong, and with which he strikes with such force, as to stun the wolf, or drive him away ; after which he flies with such speed, as to be no longer in any danger of being overtaken : but he finds a more dangerous though a less frequent and less numerous enemy than the wolf, in the *rosomack*, or *glutton*.

The Elk and the Rein-deer are both among the number of ruminating animals.

A tame Rein-deer lives only to the age of fifteen or sixteen years ; but it is to be presumed, that the life of the wild Rein-deer is of much longer duration. This animal, being four years before he arrives at his full growth, must live twenty-eight or thirty years, when he is in his natural state. The Laplanders hunt the wild Rein-deer by different methods, according to the difference of seasons. In rutting time, they make use of a tame female to attract them. They kill them by the musket, or with the bow and arrow, and draw the bow with such strength, that

inding the thickness of the hair, and the firm-
e hide, they very often kill one of these beasts
gle arrow.

ode in which the Dog-rib Indians kill the Ameri-
deer is curious. The hunters go in pairs, the fore-
carrying in one hand the horns and part of the skin
d of a deer, and in the other a small bundle of
unst which he, from time to time, rubs the horns,
the gestures peculiar to the animal. His com-
ws, treading exactly in his footsteps, and hold-
ins of both in a horizontal position, so that the
roject under the arms of him who carries the
oth hunters have a fillet of white skin round their
, and the foremost has a strip of the same round
. They approach the herd by degrees, raising
very slowly, but setting them down somewhat
after the manner of a deer, and always taking
t their right or left foot simultaneously. If any
rd leave off feeding to gaze upon this extraordi-
nomenon, it instantly stops, and the head begins
part by licking its shoulders, and performing
essary movements. In this way the hunters at-
ery centre of the herd, without exciting suspicion,
leisure to single out the fattest. The hindmost
pushes forward his comrade's gun, the head is
and they both fire nearly at the same instant.
scamper off, the hunters trot after them: in a
e the poor animals halt, to ascertain the cause of
or; their foes stop at the same moment, and,
aded as they ran, greet the gazer with a second
arge. The consternation of the deer increases;
o and fro in the utmost confusion, and sometimes
art of the herd is destroyed within the space of a
red yards.

In general, the ELK is a much larger and a much stronger animal than the Stag and the Rein-deer. It is usually larger, both in height and bulk, than the horse. His hair is so rough, and his hide so hard, that a musket-ball cannot



penetrate it. His legs are very firm, with so much motion and strength, especially in the fore feet, that he can kill a man by one single stroke of his foot; nevertheless, he is hunted nearly as we hunt the stag; that is, with men and dogs. It is affirmed, that, when he is touched with the lance, or pursued, it happens that he often falls down all at once, without either being pulled down or wounded. From this circumstance, some have presumed he was subject to the epilepsy; and on this presumption, which is not well founded (since fear alone might be able to produce the same effect), this absurd consequence has been drawn, that his hoof is a remedy for the epilepsy, and even preserves persons from it. His pace, when disturbed, is a rapid kind of trot. In walking he lifts his feet very high, and can, without difficulty, step over a gate that is ten feet high.

THE MALAYAN RUSA DEER.



animal, to which his keepers give the name of the
o Deer, is a native of India and of the Indian is-

"He is (says Mr. Bennett) dark cinereous brown
nearly black on the throat and breast, and light
intermixed with dirty white, on the inside of the

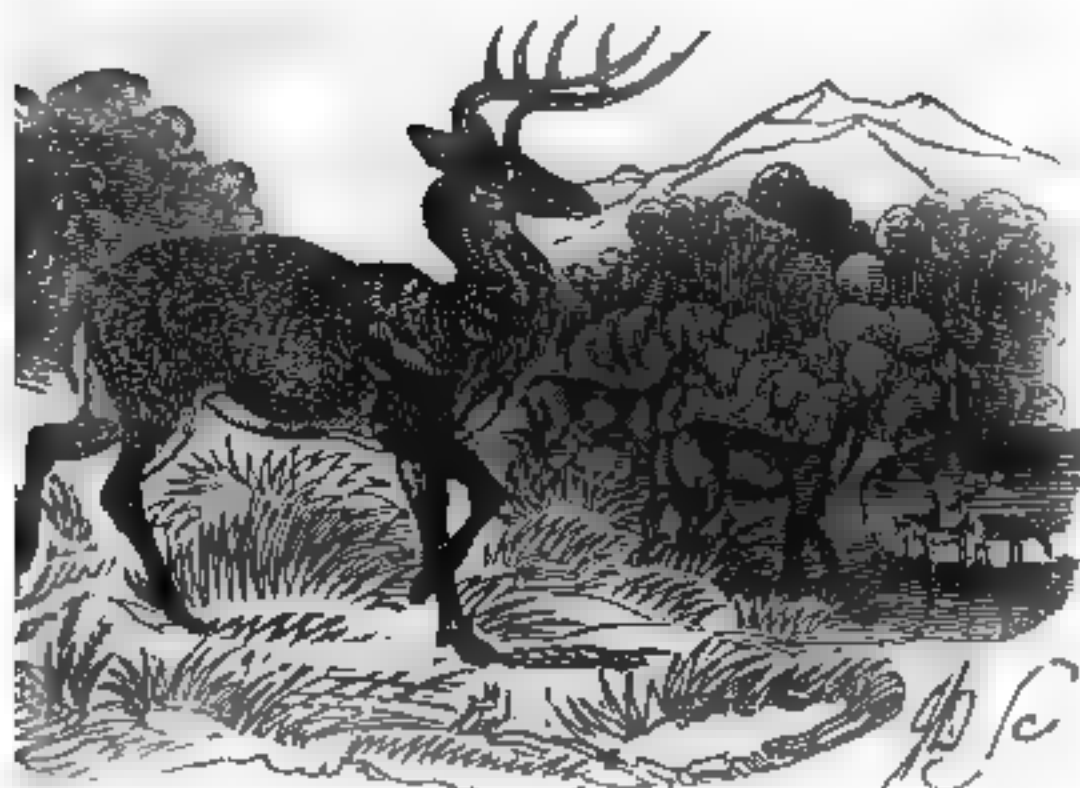
His eyes are surrounded by a fawn coloured disc,
atches of the same colour occupy the fore knees,
space above each of the hoofs in front. His nose,
is black, is enveloped in an extensive muzzle; his
e nearly naked on the inside, and marked by a patch
white at the base externally; and his mane, which
downwards over the neck and throat, is remarkably
nd heavy. His tail is black above, and light fawn
h; and a disc of the latter colour occupies the pos-
art of the buttocks, having on each side a blackish
ich separates it from the lighter tinge of the inside

of the thighs. His horns, when properly grown, of a broad burr, from which the pointed basal antler almost perpendicularly to the extent of nine or ten of a stem, which is first directed outwards, and then a bold curve inwards; and of a snag, or second a smaller size, arising from the stem near its extremity on the posterior and internal side, and forming with it a minimal fork, the branch, however, being shorter than the stem, and not exceeding five or six inches in length. The entire length of the horns is about two feet. They are of a dark colour, very strong, and deeply furrowed throughout.

“The foregoing description of the horns, it should be observed, is taken from those of the year before last which were of the genuine or normal form. Those of the last year, which are represented in the cut plate, were, from some cause or other, remarkably different. On the right side exhibiting a singular monstrosity in the production of additional branches of irregular form. Whether this was the effect of disease, or of advanced age, or whether it arose solely from some accidental or temporary cause, will probably be determined by the growth of the present year, which is not yet sufficiently advanced to enable us to ascertain the probable form.

When first brought to England, the individual was represented in the wood cut ranged at liberty, with a stag of the same species, in the great park at Windsor. So violent, however, were their quarrels, that it was necessary to separate them, and this was consigned to the Tower. He is now exceedingly tame.

AMERICAN DEER.

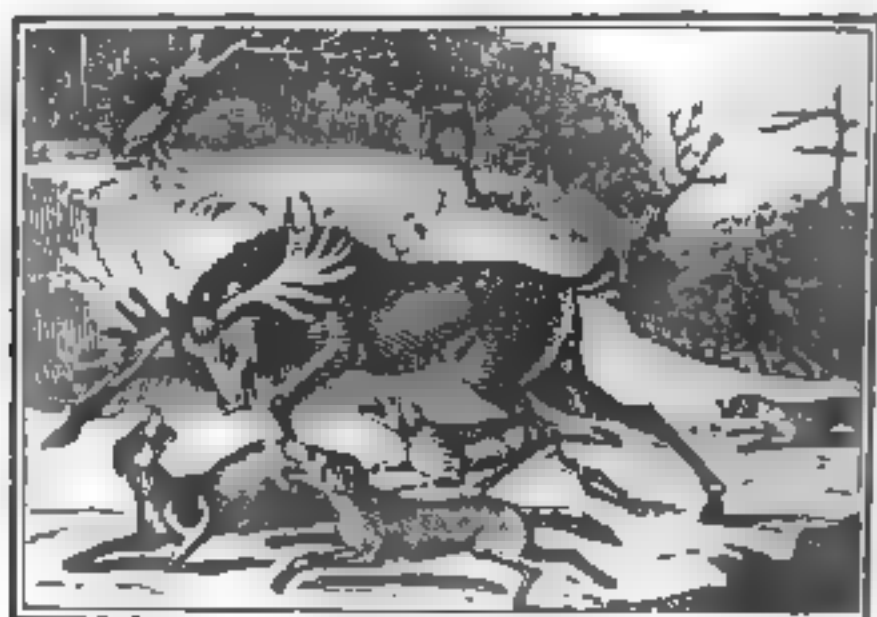


WE appear to be five species of Deer in North America: the Moose, Rein-deer, Elk, Common Deer, and Mule Deer; of the Rein-deer there are two varieties, the Bar-ground Caribou, and the Woodland Caribou. According to Lewis and Clarke there is a sixth species found on the Columbia river, which they call the Black-tailed or Snow Deer. In the following pages we have noticed the various kinds:—

THE MOOSE DEER.

NATURALISTS have generally considered the Moose Deer to be the same species with the elk of the northern parts of the old world; but the fact that few of the American Cervidæ have been found precisely similar to their European representatives, ought to excite doubts of the identity of the Moose and Scandinavian elk. The Moose exists in considerable numbers near the Bay of Fundy,
N. H. *P*

and frequents the woody tracts in the fur countries to their most northern limit, and on the Mackenzie and Coppermine rivers, where they feed on the willows and aspen.—They are rarely if ever found west of the Rocky Mountains. In the more northern parts, the Moose is quite a



solitary animal: it has the sense of hearing in very great perfection, and is the most shy and wary of all the Deer species, and on this account Moose hunting is looked upon as the greatest of an Indian's acquirements. The skill of a Moose hunter is most tried in the early part of the winter, as the animal is tracked by its foot marks on the snow; and it is necessary that he should keep constantly to leeward and use the utmost caution, for the rustling of a leaf is sufficient to alarm the watchful beast. In this manner he tracks the animal, till by the marks on the snow he discovers that he is very near to him: he then breaks a twig, which, alarming the Moose, it springs up and prepares to start. The hunter now fires, and seldom fails in killing him.

In the spring, when the snow is very deep, the hunters frequently chase them on snow shoes. Notwithstanding the lengthened chase which the Moose can sustain on the

Hearne remarks that it is both tender-footed and swinded, though instances are recorded of its eluding it for six successive days. The same author says in summer, Moose Deer are often killed in the water by the Indians, as when they are crossing the rivers or, they never make any resistance. They are the easiest to domesticate of any of the Deer kind.

The flesh of the Moose is more relished by the Indians, residents in the fur countries than that of any other animal, principally, I believe, on account of its soft fat, which bears a greater resemblance to beef in its flavour, than mutton. The nose is considered most excellent food. The Moose acquires a large size, occasionally weighing more than twelve hundred pounds. Their skins, when properly dressed, make a soft, thick, pliable leather, excellently adapted for moccasins, or other articles of winter wearing. Its movements are very heavy; it shuffles or creeps along, its joints cracking at every step, with a sound heard to some distance. During its progress, it holds up its nose so as to lay the horns back horizontally. Though its figure is uncouth, yet when seen in the wilderness in all the glory of its full-grown horns, no animal can appear more majestic or imposing.—*Richardson*.

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Rein-deer or Caribou of North America bears so great a resemblance in appearance and manners to the European Rein-deer, that they always have been considered the same species, without the fact having ever been established. They exist in Greenland, Labrador, and Newfoundland, but are not known in Iceland. They extend probably completely across the northern parts of the American continent, and are most numerous in the country surrounding Hudson's Bay. There are two per-

manent varieties of Caribou that inhabit the fur countries, one of them confined to the woody and more southern districts, and the other passing the summer on the Barren Grounds.—*Richardson*.

BARREN GROUND CARIBOU.

THIS variety is of small stature, weighing, when in good condition, from 90 to 130 lbs. The old males have the largest and most palmated horns, while the young and the females have them less branched and more pointed. The horns assume a great variety of forms, no two individuals having them alike. The horns of this variety are twice the size of those of the woodland Caribou, though the latter is a much larger animal.

The Barren Ground Caribou resort in winter to the woods lying in the 66th° of latitude, where they feed on lichens and long grass. In summer they all proceed to the sea-coast, where they feed on the sprouting carices, and on the withered grass and hay of the preceding year. They return to the woods in October, and feed on the lichens which they procure by scraping away the snow. They travel in herds, varying, from ten to two or three hundred in number. The Indians kill them with the bow and arrow, or gun; take them in snares; or spear them in crossing rivers and lakes. The Esquimaux take them in traps ingeniously formed of ice or snow. Of all Deer, they are the most easy of approach, and are slaughtered in the greatest numbers. Their flesh is very tender, and is, when in season, superior to the finest English venison. The numerous tribes of Indians who inhabit the barren lands could not exist, were it not for the immense herds of this Deer that are found there. Of the horns, they make fish-spears and hooks; the hide is excellent for winter clothing, and supplies the place of both blanket and

rather bed to these inhabitants of the Arctic wilds. The reindeer bone is used for a knife; rope is made of the undressed reindeer skin, and fine thread is made of the muscles and tendons. Besides these and many other uses, to which the Caribou is applied, the flesh affords excellent food. Even the contents of its stomach are eaten with relish by the Indians and Canadian voyagers.—*Richardson*.

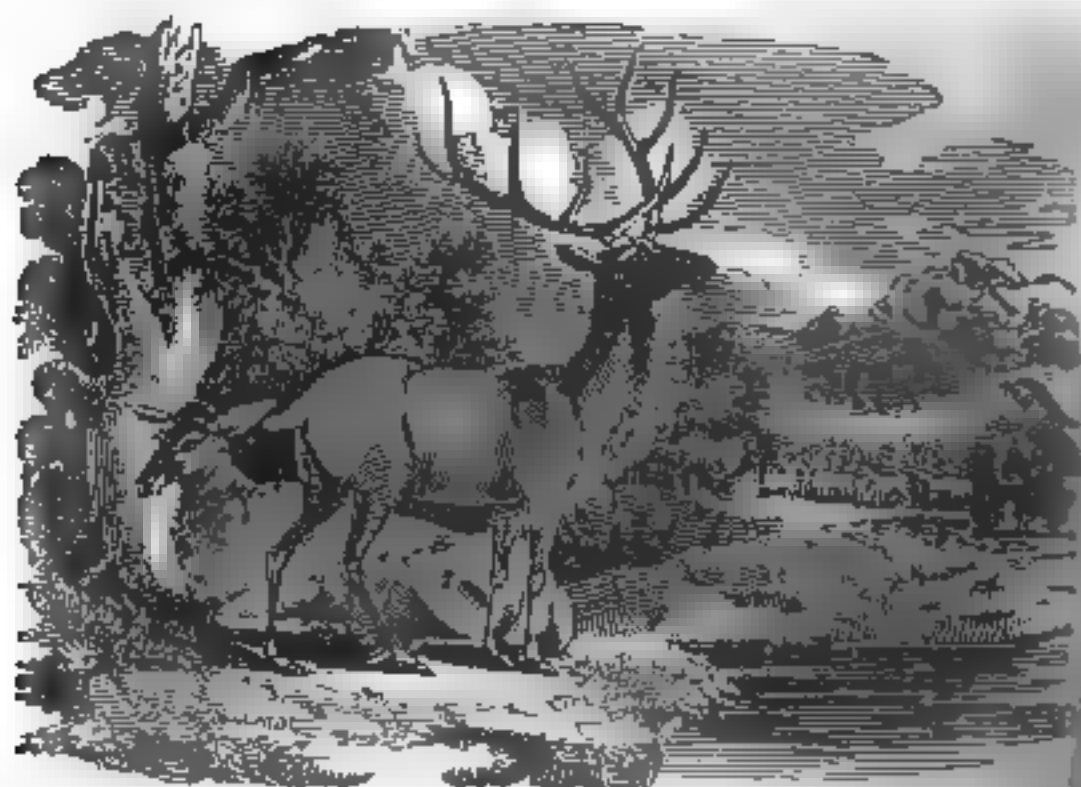
WOODLAND CARIBOU.

This variety is much larger than the Barren Ground Caribou, has smaller horns, and is vastly inferior as an article of food. It inhabits the low rocks, well clothed with lichen, extending to a distance of 80 or 100 miles from the shores of Hudson's Bay. Unlike the Barren Ground Caribou, they retire to the southward on the approach of spring. The herds are so large as to take several hours crossing a river in a crowded phalanx. They are killed principally for the sake of their skins.—*Richardson*.

AMERICAN ELK, CANADA STAG, OR WAPITI.

This species is second in size to the moose alone. The size and appearance of the Elk are imposing; his air denotes confidence of great strength, while his towering horns exhibit weapons capable of doing much injury when sensibly employed. It is not uncommon to see them four or five feet in height, and it is said they are sometimes still higher. The Elk has at one period ranged over the greater part, if not the whole, of this continent. Hearne leaves no doubt of its existence as far north as 53°. They are occasionally found in the remote and thinly settled parts of Pennsylvania, but the number is small. They are found in great numbers in the western wilds, where the forests supply them with an abundance of buds and tender twigs. The Elk is shy and retiring, and has

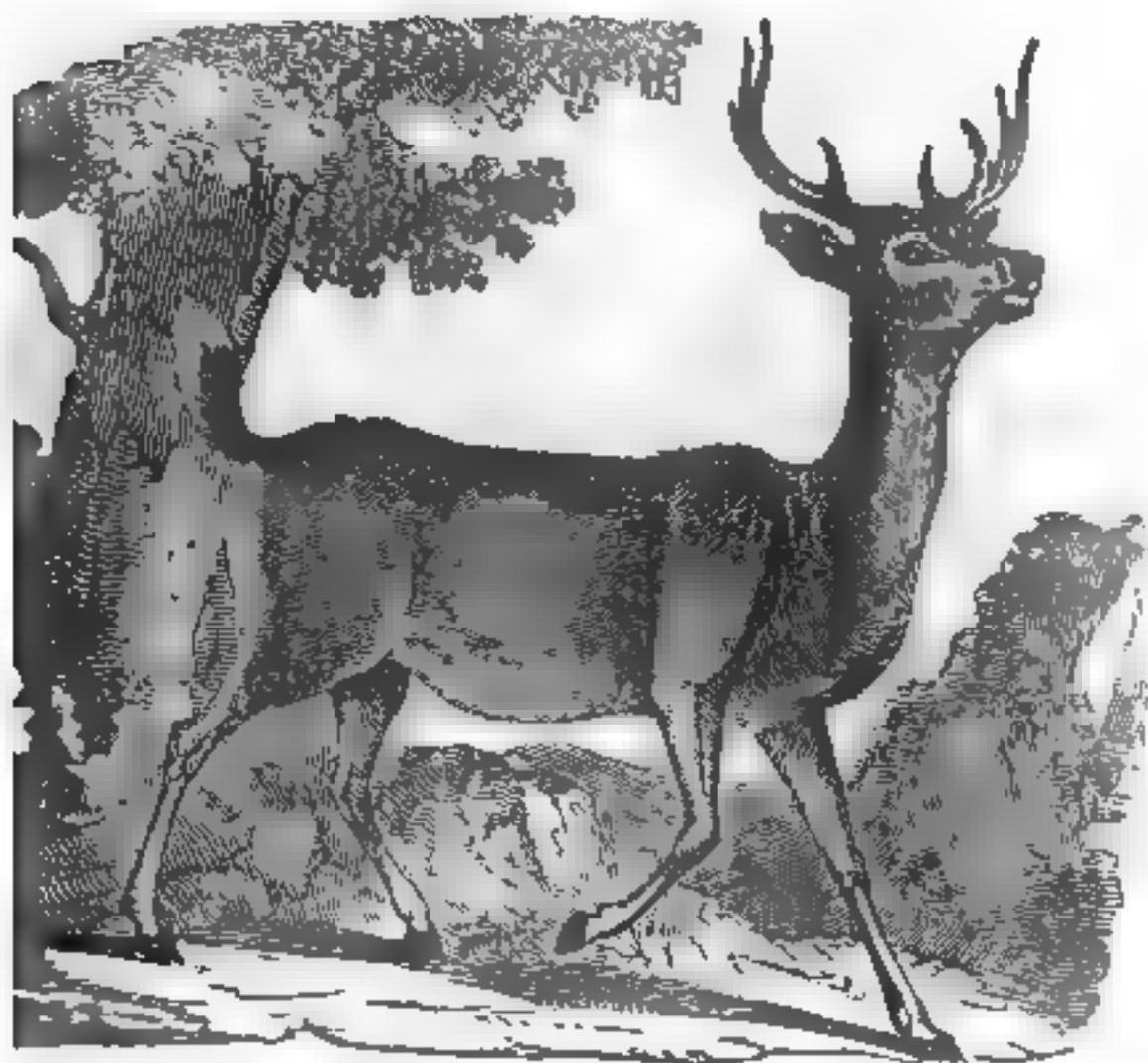
very acute senses. The moment the air is tainted by the odour of his enemy, his head is erected with spirit, his ears rapidly thrown in every direction to catch the sounds, and his dark glistening eye expresses the most eager at-



tention. As soon as he discovers the hunter, he bounds along for a few paces, stops, turns half round, and scans his pursuer with a steady gaze, then throwing back his lofty horns, and projecting his taper nose forwards, he springs from the ground and advances with a velocity which soon leaves the object of his dread far out of sight.

The flesh of the Elk is highly esteemed by the Indians and hunters as food, and the horns, while in a soft state, are also considered a delicacy; of their hides a great variety of articles of dress and usefulness are prepared. The Indians form bows of the perfect horn which are highly serviceable from their elasticity. These animals have been to a certain degree domesticated, and might possibly be rendered as useful as the rein-deer.—*Godman*.

THE AMERICAN FALLOW DEER, OR VIRGINIA DEER.



HIS is the smallest species known in America. It is found throughout the country, from Canada in the north, to the banks of the Orinoco in South America. It is remarkable for the slenderness and delicacy of its form. Its long and slim neck, small body, and almost pointed head, give the animal an air of feebleness, the impression of which is only to be counteracted by observing the animated eye, the playful movements and admirable celerity of its course when at full speed.

The Virginia Deer is of great importance as an abundant source of food and raiment. Vast numbers are an-

nually destroyed for the sake of their flesh, hide, and horns. The flesh is justly considered an excellent article of food, when killed in the proper season. The Indians and hunters feed upon it at all seasons. The stomach of the Deer with its half-digested contents is a very favourite dish with almost all the savages, especially toward the north, where Deer feed in a great degree on mosses and buds.

This species of Deer has very keen senses, especially of hearing and smelling, upon which its safety particularly depends. It is a very shy and timid animal, and the slightest noise excites his attention, and if the cause of alarm be continued, he exerts his strength, and dashes off in his swiftest career. It is said by hunters to evince a strong degree of animosity towards serpents, and especially to the rattlesnake, of which it has an instinctive horror. In order to destroy one of these creatures, the Deer makes a bound into the air, and alights upon the snake with all four feet brought together in a square, and these violent blows are repeated till the hated reptile is destroyed. The skins of this Deer continue to form a very valuable article of commerce, and furnish a material better adapted for the manufacture of gloves and other articles, than the skin of any other animal with which we are acquainted.

The following figure is drawn from a female Virginia Deer, now in the Zoological Gardens in London. The editor of the "Gardens and Menagerie of the Zoological Society," makes the following observations: "In size it is somewhat superior to our own Fallow Deer, which it much resembles in its general form. The colour of the fawn is a deep tawny, sprinkled with scattered white spots, which are lost as the autumn advances. The hair then becomes grayish, at which period the animal is said by the hunters to be in the gray. During the summer months,

is said to be in the red. While the latter is again changing to the winter gray, the mixture of the two colours produces a bluish tinge, which the hunters express by saying that the Deer is in the blue, at which season the skin is reckoned most valuable."



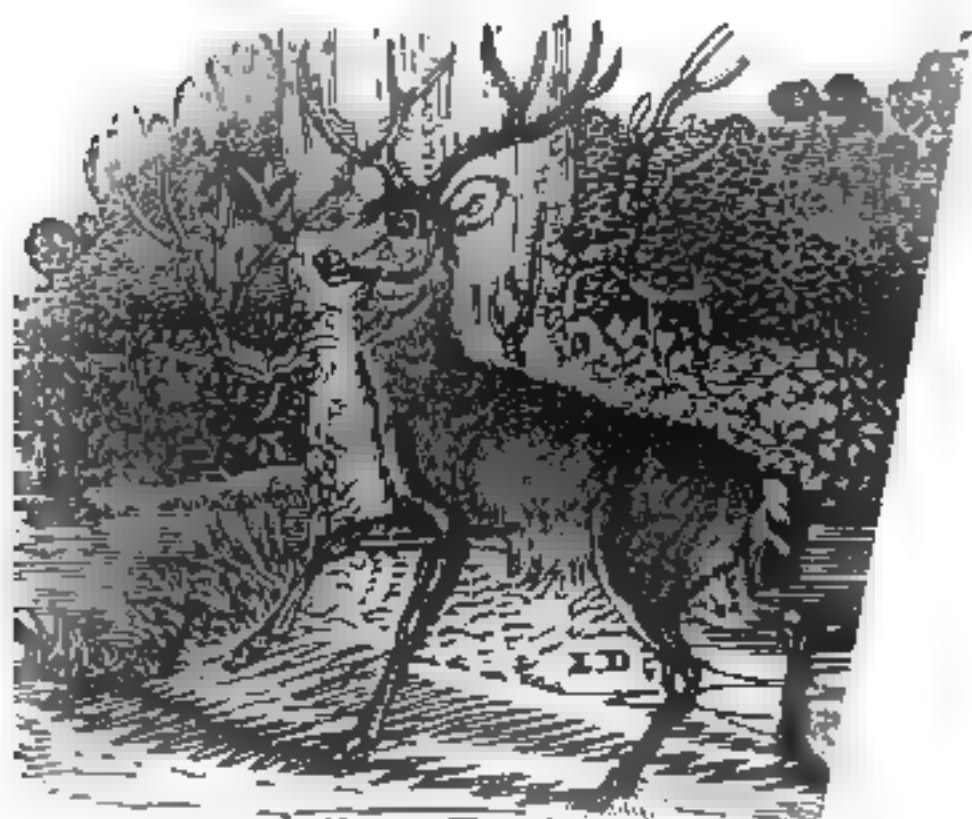
Whether the American Fallow Deer be identical with the Fallow Deer of Europe has not yet been ascertained. They were formerly supposed the same; but doubts are now entertained on the subject, and it is highly probable that farther investigation will show that this, as well as the other American animals of the Deer kind, are distinct species from those of the Eastern continent.

NATURAL HISTORY.

LONG TAILED DEER.

ought by Lewis and Clarke to be only a Virginia Deer, being the same in size, and shape. The tail however far exceeds that of the Virginia Deer in length. Captain Lewis measured it to be seventeen inches long. The favourite haunts of this animal are on the declivities of low hilly and rolling grounds. Its gait is two ambling round, which mode it does not depart from when closely pursued. In running, the tail is erect. Its unusual length is the most remarkable feature of the animal. It is the most common Deer of the districts adjoining the river Columbia, more especially the fertile prairies within one hundred miles of the Ocean. The flesh is excellent, and remarkably tender and well flavoured.—*Richardson.*

THE BLACK-TAIL OR MULE DEER.



This Deer is the inhabitant, on the side of the mountains, of a district frequented by immense

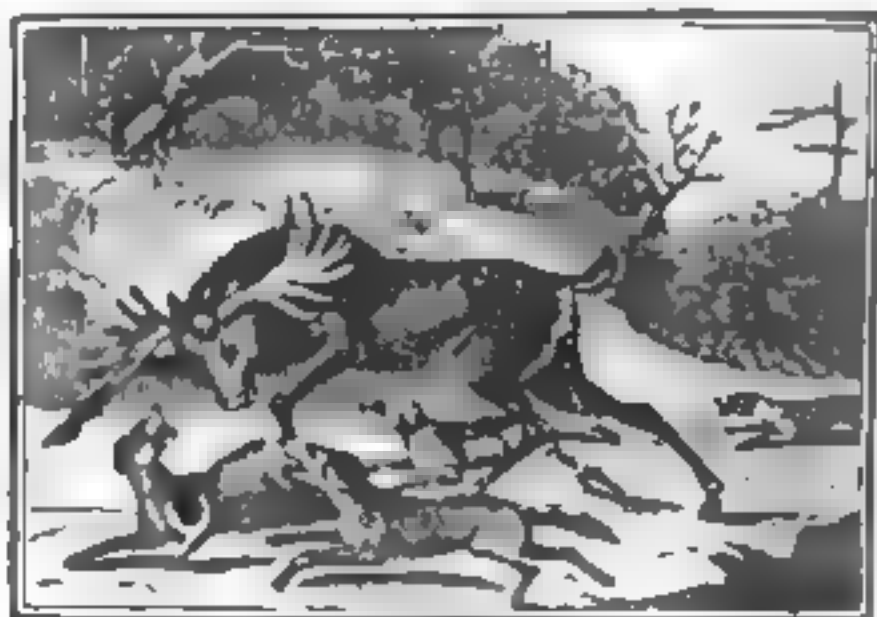
and also by the large moose deer and wapiti, and is of small esteem amongst the Indians in that quarter. It has attracted but little attention from the traders; hence, with the exception of a brief notice by Umfreville, it was almost unknown to naturalists, until Lewis and Clarke's expedition gave some information respecting it. The most northern range of this animal is the banks of the Saskatchewan, in latitude 54°.—*Richardson*.

BLACK-TAILED FALLOW DEER.*

THE Black-tailed Fallow Deer, are peculiar to the mouth of the Columbia, and are a distinct species, partaking equally of the qualities of the mule, and the common deer. Their ears are longer than those of the latter animal, their legs are shorter, and their bodies thicker and surger. This animal never runs at full speed, but bounds with every foot from the ground at the same time. He sometimes inhabits the woodlands, but more often the prairies and open grounds. It may be generally said that he is of a larger size than the common Deer, and less than the Mule Deer. The flesh is seldom fat, and in flavour is inferior to any other species.—*Lewis and Clarke*.

* *Richardson* seems to consider this a variety of the Mule Deer, and not a distinct species.

and frequents the woody tracts in the fur countries to their most northern limit, and on the Mackenzie and Coppermine rivers, where they feed on the willows and aspen.—They are rarely if ever found west of the Rocky Mountains. In the more northern parts, the Moose is quite a



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very acute senses. The moment the air is tainted by the odour of his enemy, his head is erected with spirit, his ears rapidly thrown in every direction to catch the sounds, and his dark glistening eye expresses the most eager at-



tention. As soon as he discovers the hunter, he bounds along for a few paces, stops, turns half round, and scans his pursuer with a steady gaze, then throwing back his lofty horns, and projecting his taper nose forwards, he springs from the ground and advances with a velocity which soon leaves the object of his dread far out of sight.

The flesh of the Elk is highly esteemed by the Indians and hunters as food, and the horns, while in a soft state, are also considered a delicacy; of their hides a great variety of articles of dress and usefulness are prepared. The Indians form bows of the perfect horn which are highly serviceable from their elasticity. These animals have been to a certain degree domesticated, and might possibly be rendered as useful as the rein-deer.—*Godman*

THE AMERICAN FALLOW DEER, OR VIRGINIA DEER.



It is the smallest species known in America. It is found throughout the country, from Canada in the north, to the banks of the Orinoco in South America. It is remarkable for the slenderness and delicacy of its form. Its long and slim neck, small body, and almost pointed ears, give the animal an air of feebleness, the impression which is only to be counteracted by observing the animated eye, the playful movements and admirable celerity of its course when at full speed.

The Virginia Deer is of great importance as an abundant source of food and raiment. Vast numbers are an-

ually destroyed for the sake of their flesh, hide, and horns. The flesh is justly considered an excellent article of food, when killed in the proper season. The Indians and hunters feed upon it at all seasons. The stomach of the Deer with its half-digested contents is a very favourite dish with almost all the savages, especially toward the north, where Deer feed in a great degree on mosses and buds.

This species of Deer has very keen senses, especially of hearing and smelling, upon which its safety particularly depends. It is a very shy and timid animal, and the slightest noise excites his attention, and if the cause of alarm be continued, he exerts his strength, and dashes off in his swiftest career. It is said by hunters to evince a strong degree of animosity towards serpents, and especially to the rattlesnake, of which it has an instinctive horror. In order to destroy one of these creatures, the Deer makes a bound into the air, and alights upon the snake with all four feet brought together in a square, and these violent blows are repeated till the hated reptile is destroyed. The skins of this Deer continue to form a very valuable article of commerce, and furnish a material better adapted for the manufacture of gloves and other articles, than the skin of any other animal with which we are acquainted.

The following figure is drawn from a female Virgin Deer, now in the Zoological Gardens in London. The editor of the "Gardens and Menagerie of the Zoological Society," makes the following observations: "In size it is somewhat superior to our own Fallow Deer, which it much resembles in its general form. The colour of the fawn is a deep tawny, sprinkled with scattered white spots, which are lost as the autumn advances. The hair then becomes grayish, at which period the animal is said by the hunters to be in the gray. During the summer months,

said to be in the red. While the latter is again changing to the winter gray, the mixture of the two colours produces a bluish tinge, which the hunters express by saying the Deer is in the blue, at which season the skin is deemed most valuable."



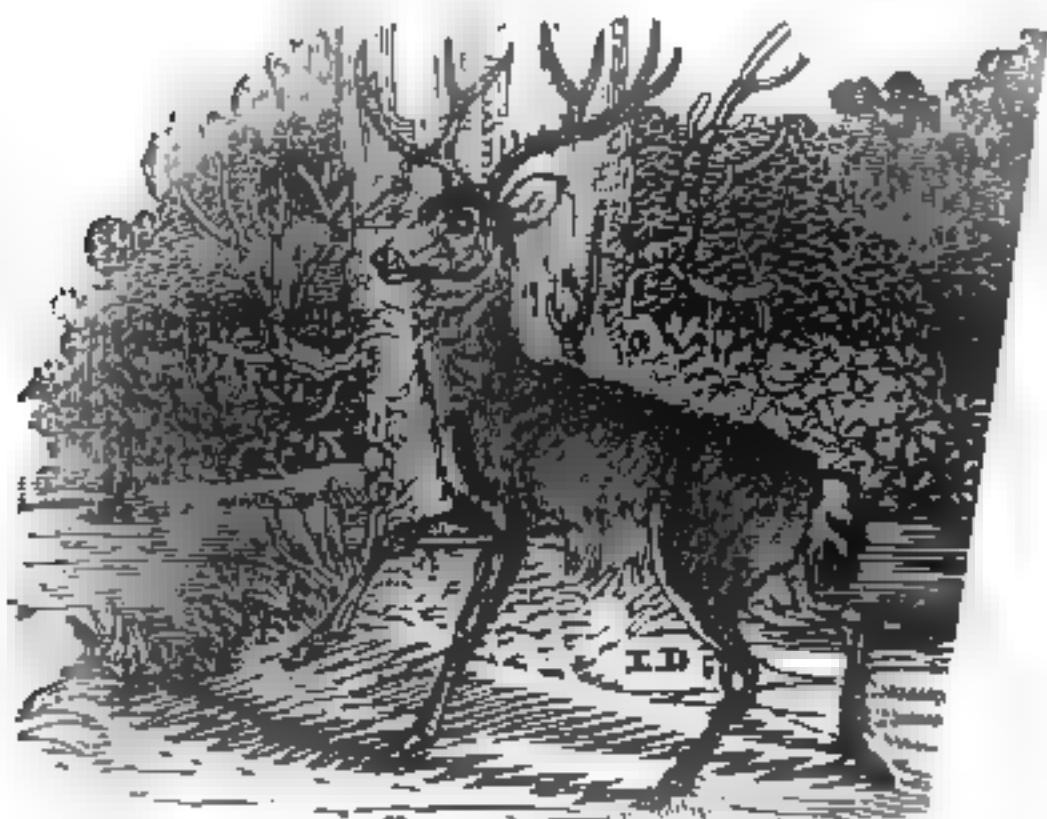
Whether the American Fallow Deer be identical with the Fallow Deer of Europe has not yet been ascertained. They were formerly supposed the same; but doubts are now entertained on the subject, and it is highly probable that farther investigation will show that this, as well as the other American animals of the Deer kind, are distinct from those of the Eastern continent.

NATURAL HISTORY.

LONG TAILED DEER.

It is thought by Lewis and Clarke to be only a variety of the Virginia Deer, being the same in size, shape and appearance. The tail however far exceeds that of the Virginia Deer in length. Captain Lewis measured and found it to be seventeen inches long. The favourite haunts of this animal are on the declivities of low hills and dry undulating grounds. Its gait is two ambling and a bound, which mode it does not depart from, when closely pursued. In running, the tail is erect from its unusual length is the most remarkable feature about the animal. It is the most common Deer of all the districts adjoining the river Columbia, more especially in the fertile prairies within one hundred miles of the Pacific Ocean. The flesh is excellent, and remarkably tender and well flavoured.—*Richardson.*

THE BLACK-TAIL OR MULE DEER.



THIS Deer is the inhabitant, on the side of the mountains, of a district frequented by immense

d also by the large moose deer and wapiti, and is of all esteem amongst the Indians in that quarter. It has attracted but little attention from the traders; hence, with the exception of a brief notice by Umfreville, it was almost unknown to naturalists, until Lewis and Clarke's expedition gave some information respecting it. The most northern range of this animal is the banks of the Saskatchewan, in latitude 54°.—*Richardson*.

BLACK-TAILED FALLOW DEER.*

THE Black-tailed Fallow Deer, are peculiar to the mouth of the Columbia, and are a distinct species, partaking equally of the qualities of the mule, and the common deer. Their ears are longer than those of the latter animal, their legs are shorter, and their bodies thicker and heavier. This animal never runs at full speed, but bounds with every foot from the ground at the same time. He sometimes inhabits the woodlands, but more often the prairies and open grounds. It may be generally said that it is of a larger size than the common Deer, and less than a Mule Deer. The flesh is seldom fat, and in flavour is inferior to any other species.—*Lewis and Clarke*.

• *Richardson* seems to consider this a variety of the Mule Deer, and as a distinct species.

CHAP. XVIII.

Of the Ibex, the Chamois, and other Goats....The Antelope, or Gazelle....Of the Bezoar Stone. Bubalus, or Stag-like Antelope....The Condor, or Andean Antelope....The Guib, or Harnessed Antelope....The Indian Antelope....The Chevrotin, or Mazame, and Tememazame....The Coudous....The Nyl-ghau....The Musk....The Production of Perfume.

THE IBEX, THE CHAMOIS,
AND OTHER GOATS.

ALTHOUGH it appears that the Greeks were acquainted with the Ibex and the Chamois, yet they have not named them by any particular denomination, nor characters sufficiently exact for them to be distinguished: they have only indicated them under the name of *Wild Goats*.* They probably presumed these animals were of the same species as the Goats, as they have not given them proper names as they have done to every other different species of animals; on the contrary, all our modern naturalists have recognised the Ibex and the Chamois as two real and distinct animals, both of them different from that of our Goats.

The male Ibex differs from the Chamois, by the thickness, and the form of the horns; it

Later naturalists have formed the antelopes into an intermediate between the goats and the deer. The *Antelope Rupicapra* of Linnæus and Pallas. The *Capra Ibex* of Linnæus.

are bulky, vigorous, and strong. The female Ibex has a different form from the male ; they are also much smaller and nearly resembling those of the Chamois. In other respects, these two animals have the same customs, the same manners, and the same country ; only the Ibex, as he is endowed with more agility, and is stronger than the Chamois, climbs to the summit of the highest mountains, while

the Chamois only lives in the second stage ; but neither one nor the other is to be found in the plains : both take their way on the snow ; both ascend precipices by leaping from rock to rock ; both are covered with a firm and a solid skin, and clothed, in winter, with a double fur, a very rough hair outwardly, and a finer and thicker underneath ; both of them have a black stripe on the back, and both likewise have the tail nearly of the same size. The number of exterior resemblances is so great, in comparison with the differences, and the conformity of the exterior parts is so complete, that if we reason in consequence of these accounts, we might be led to believe, that these animals are not really of a different species, but that they are simply only constant varieties of one and the same species. The Ibex, as well as the Chamois, when taken young and brought up with domestic Goats, are easily tamed ; and, accustomed to domesticity, imitate the same manners, herd together, return to the stable, and probably procreate together. I avow, however, that this, the most important of all, and which alone would decide the question, is not known to us.

Let us, nevertheless, take a view of the opposite reasons. The species of the Ibex and the Chamois both subsist in a state of nature, and both are constantly distinct. The Chamois sometimes comes, of his own accord, and joins the stock of our domestic sheep. The Ibex never joins them, at least not before it is tamed. The Ibex and the

The Goat have a very long beard, and the Chamois has not at all; the male and female Chamois have very small horns; those of the male Ibex are so thick and so long that they would scarcely be imagined to belong to an animal of its size. The horns of the male Ibex are not very different from those of the Goat; as the female, however, approaches our Goat, and even the Chamois, in the size and smallness of the horns, may we not conclude, that these animals, the Chamois and the domestic Goat, are, in fact, but one and the same species, in which the nature of the females is invariable and alike, while the males are subject to varieties, which render them different one from the other?



The Ibex, or wild Goat, entirely and exactly resembles the domestic Goat, in the conformation, the organization and the natural and physical habits: it only varies by slight differences, the one externally, and the other internally. The horns of the Ibex are longer than those of the Goat; they have two longitudinal ridges; those of the Goat have but one; they have also thick knots, or transverse tubercles, which mark the number of years of growth, while those of the Goats are only marked by transverse strokes. The Ibex runs as fast as the

lighter than the roebuck. All Goats are liable to sores, which are common to them with the Ibex and the Chamois, as well as the inclination to climb up rocks ; and another custom, which is that of continually licking stones, especially those which are strongly impregnated with saltpetre, or common salt. In the Alps there are caverns which have been hollowed by the tongue of the Chamois.

These are commonly soft and calcinable stones, in which, as is well known, there is always a certain quantity of saltpetre. These natural agreements, these conformable habits, among other circumstances, appear to me to be constant indexes of the identity of species in these animals.

The Ibex and the Chamois, one of which I look upon as the male, and the other as the female stock of the Goats, are only found, like the mouflon, who is the head of the sheep species, in deserts, and upon the most high places of the highest mountains : the Alps, the Pyrenees, the mountains of Greece, and those of the islands of the Archipelago, are almost the only places where the Ibex and the Chamois are to be found. But, although these animals dislike heat, and only inhabit the regions of snow and ice, yet they have also an aversion to extreme cold. In the summer, they choose the north of the mountains ; in winter, they descend into the valleys ; neither the one nor the other can support themselves on their legs upon the ice, when it is smooth ; but, if there be great inequalities on its surface, they bound along with facility.

The chase of these animals is very troublesome, and they are entirely useless in it ; it is likewise very dangerous to men ; for sometimes the animal, finding itself hard pressed, turns and strikes the hunter, and precipitates him from the rock, *unless he has time to lie down, and let the*

creature bound over him. If the pursuit be continued this animal will throw himself down the steepest declivities, and fall upon his horns in such a manner as to escape unhurt.

M. Perond, surveyor of the crystal mines in the A having brought over a living Chamois, has given us following information on the natural habits of this animal.



“The Chamois is a wild animal, but easily tamed, and docile. It is about the size of a domestic goat, and resembles one in many respects. It is most agreeably lively and active beyond expression. Its hair is short, like of the doe; in spring it is of an ash colour, and in winter of a blackish brown. The large males keep themselves apart from the rest, except in their rutting time. The season of their coupling is from the beginning of October to the end of November; and they bring forth in April and March. The young follows the dam for about five months and sometimes longer, if the hunters or the wolves do not separate them. It is asserted that they live between twenty and thirty years. The flesh of the Chamois is good to eat, and some of the fattest afford ten or twelve pounds of suet, which far surpasses that of the goat in solidity and goodness.”

The cry of the Chamois is not distinctly known; it

ay, it is but faint, and resembling that of a hoarse cry; it is by this cry it calls its young; but, when they are frightened, or are in danger of any enemy, or some object not perfectly known to them, they warn the rest of the flock by a kind of hissing noise. It is observable, that the Chamois has a very penetrating eye, and its hearing and smell are not less distinguishing. When it finds an enemy near, it stops for a moment, and in an instant flies off with the utmost speed. When the wind is in its favour, it can smell a human creature for more than half a mile distance. When this happens, it crouches low, and it cannot see its enemy, but only discovers his approach by the scent, it begins the hissing noise with great force, that the rocks and the forests re-echo with the sound. This hissing continues as long as the breath will last. In the beginning it is very shrill, and deeper to the close. This animal then rests a moment, after the alarm, to inspect further into its danger; and, having ascertained the reality of its suspicion, it commences to hiss in intervals, till it has spread the alarm to a great distance. During this time, it is in the most violent agitation, strikes round forcibly with its fore foot, and sometimes with its hind, it bounds from rock to rock; it turns, and looks round; it goes to the edge of the precipice, and when it has obtained a sight of the enemy, flies from it with all its speed. The hissing of the male is much more acute than that of the female; it is performed through the nostrils, and is, properly, no more than a very strong breath, forced through the nostrils by fixing the tongue to the palate, keeping the mouth nearly shut, the lips open, and a little lengthened. Their agility is wonderful, as they will throw themselves down, across a rock, which is nearly perpendicular, twenty or thirty feet in height, without a single support for their feet. Their motion has, indeed, rather the

appearance of flying than of leaping. The Chamois upon the best herbage, and chooses the most delicate of plants, flowers, and the most tender buds. It is less delicate with regard to several aromatic herbs, grow upon the sides of the Alps. It drinks but very little while it feeds upon the succulent herbage, and runs like the goat, in the intervals of feeding. Its head is crowned with two small horns, of about half a foot long, of a beautiful black, and rising from the forehead, betwixt the eyes. These horns are often made use of for the heads of canes. The hides of these animals are strong and supple, and good warm waistcoats and breeches are made of them.

The hunting of the Chamois is very laborious, and extremely difficult and perilous. It is thus admirably described by Saussure :—"The Chamois hunter sets out on his expedition of fatigue and danger generally at night. His object is to find himself, at the break of day, in the most elevated pastures, where the Chamois feed before the flocks shall have arrived. The Chamois feeds only at morning and at evening. When the hunter has nearly reached the spot where he expects to find his prey, he reconnoitres with a telescope. If he finds not the Chamois, he mounts still higher. When he discovers him, he endeavours to climb above him, to get nearer, by passing round some ravine, or behind some eminence or rock. When he is ready to distinguish the horns of the animal (which are round, pointed, and bent backward like a horn cut), he rests his rifle upon a rock, and waits with great coolness. He rarely misses. The rifle is double-barrelled. If the Chamois falls, he runs to his prey—makes sure of him by cutting the strings—and applies himself to consider by

best regain his village. If the rout is very difficult, contents himself with skinning the Chamois; but if the is at all practicable with a load, he throws the animal his shoulder, and bears it home to his family, undaunted by the distance he has to go, and the precipices he has to cross.

But when, as is more frequently the case, the vigilant animal perceives the hunter, he flies with the greatest swiftness into the glaciers, leaping with incredible speed over the frozen snows and pointed rocks. It is particularly difficult to approach the Chamois when there are many of them. The sentinel, who is placed on the point of a rock which commands all the avenues of their passage, makes the sharp hissing sound already mentioned, the sound of which all the rest run towards him, to escape for themselves of the nature of the danger. If they ever see a beast of prey or a hunter, the most experienced places himself at their head; and they bound along, one after the other, into the most inaccessible places.

It is then that the labours of the hunter commence; when, carried away by the excitement, he knows no fear. He crosses the snows, without thinking of the crevasses which they may cover; he plunges into the dangerous passes of the mountains; he climbs up, leaps from rock to rock, without considering how he will return. The night often finds him in the heat of the pursuit; but he does not give it up for this obstacle. He knows that the Chamois will stop during the darkness, and takes as himself, and that on the morrow he may again hunt them. He passes then the night—not at the foot of a mountain, nor in a cave covered with verdure, as does the hunter of the plain—but upon a naked rock, or upon a heap of rough stones, without any sort of shelter. He is without fire, without light; but he takes from his

bag a bit of cheese and some of the barley bread is his ordinary food—bread so hard that he is obliged to break it between two stones, or to cleave it with an axe, which he always carries with him to cut steps which serve for his ladder up the rocks of ice. His frugal life being soon ended, he puts a stone under his head and is presently asleep, dreaming of the way the Chamois is to be taken. He is awakened by the freshness of the air; he rises, pierced through with cold; he measures with his eye the precipices he must yet climb to reach the Chamois; he drinks a little brandy (of which he always carries a small provision), throws his bag across his back, and again rushes forward to encounter new dangers. These daring and persevering hunters often remain many days in the dreariest solitudes of the glaciers of the Alps; and, during this time, their families, and, as it were, their unhappy wives, feel the keenest alarm for the success of the chase.

“And yet, with the full knowledge of the dangers to be encountered, the chase of the Chamois is the result of an insurmountable passion. Saussure knew some young man, of the district of Chamouni, who was about to be married; and the adventurous hunter addressed the naturalist: ‘My grandfather was killed in the chase of the Chamois; my father was killed also; and I am so certain that I shall be killed myself, that I always carry with me a bag, which I always carry hunting, my winding-sheet; I am sure that I shall have no other; and yet, if you offer to make my fortune, upon the condition that I should renounce the chase of the Chamois, I should refuse your kindness.’ Saussure adds, that he went several times in the Alps with this young man; that he possessed great climbing skill and strength; but that his temerity was greater than either; and that, two years afterwards, he met with the fate which he had anticipated, by his foot failing on the edge of a precipice to which he had leaped.

very few individuals of those who grow old in this ear on their countenances the traces of the life they have led. They have a wild, and somewhat bold and desperate air, by which they may be recognised in the midst of a crowd. Many of the superstitious believe that they are sorcerers; that they have commerce with the evil spirit; and that it is he that throws over the precipices."

THE SAIGA.

is a sort of wild goat found in Hungary, in Tartary, and in South Siberia, which the Russians call *Seigak*, or *Saiga*. It bears a resemblance to the domestic goat, in the shape of its body, and in its hair; but, by the shape of its horns, and the defect of the beard, it approaches the *Gazelle*, and appears to be a mixture of these animals.

Saiga, by its natural habits, resembles more the ibex and the chamois; for it does not descend into mountainous countries, but lives upon the hills and plains. It is very agile, very swift, and its flesh is better eating than that of the ibex, or any other wild goat.

This animal, which was imperfectly known to M. Buffon, was first described by the *Scythian Antelope* of Pennant, the *Antilope Saiga* of Linnæus. It is of a gray yellowish colour, and of the size of a fallow-deer. Numbers of them are to be found in the dreary and extensive deserts about Mount Caucasus, the Caspian Sea, and in Siberia. In autumn they collect together, and migrate towards the south; in spring they separate, and return to the north. Being exceedingly fond of salt, they confine themselves chiefly to countries as have salt springs. Like the chamois, the head of their herd acts as sentinel when the flock rests, and when he is tired he is relieved by another.

ROCKY MOUNTAIN GOAT.



THIS animal inhabits the most lofty peaks of the Rocky Mountains, seldom descending so near the low coast as the Rocky Mountain sheep. Their manners are and resemble greatly those of the domestic goat. The limits of the range of this animal have not been ascertained, but it probably extends from the 40th to the 60th or 65th degree of latitude. It is common on the elevated part of the range that gives origin to the Mackenzie, Columbia, Nelson, and Missouri rivers. The fine wool of the animal produces, grows principally on the back and hips, and is intermixed with long coarse hair. From the circumstance of its bearing wool, it has occasionally been termed a sheep by the voyagers and even by natives, and some little confusion has therefore crept into the accounts of its habits, which have been published from the reports of traders. Its flesh is hard and dry, and is little esteemed. The Indians make caps and saddles of its skin. The Hudson's Bay company have very lately presented a specimen of the goat to the Zoological Society. This animal is of the size of the domestic sheep, and is white, except the horns, hoofs, lips, and margins of the nostrils: the horns are black and shining.—Richardson.

THE GAZELLE, OR ANTELOPE.



gazelles can hardly be referred with propriety either to the goat or the deer, and yet they partake of both natures. Linnæus, in his former editions, and several other naturalists, have arranged them with the goat species; but Erxleben, and Pennant, have classed them as a distinct genus. Like the goat, they have *hollow horns which fall*; in which respect they differ from the deer. They have a gall-bladder, which is found in the goat, and not in the deer; and, like the former animal, they browse upon shrubs rather than graze in pastures. On the other hand, many of them resemble the roebuck both in size and in the intricacy of form; and have deep pits under the eyes like that animal. They resemble it also in colour, and in the texture of their hair, as well as in the bunches upon the fore legs, which only differ in being on the fore legs of the roebuck, and on the hind legs of the other. They seem, therefore, to be of a middle nature, between the roebuck and the goat.

The distinguishing marks of this tribe of animals, by which they differ both from the goat and the deer, are that their horns are formed differently, being annulated, and not round, and having longitudinal depressions run-

ning from the basis to the point. They have bunches of hair upon their fore legs; and they have mostly a streak of black, red, or brown, running along the lower part of their sides, also three streaks of whitish hair on the inner side of the ear. Besides these, there are others which in general they are found to have, and which are more conspicuous to the beholder. Of all the animals in the world the Gazelle has the most beautiful eye, extremely brilliant and yet so meek, that all the eastern poets compare the eyes of their mistresses to those of this animal. The epithet of Gazelle-eyed is considered the highest compliment that a lover can pay; and, indeed, the Greeks themselves thought it no inelegant piece of flattery to compare the eyes of a beautiful woman to those of a cow.

The Gazelle is, for the most part, more delicately and finely limbed than even the roebuck: its hair is as soft but finer and more glossy. The hinder legs of some of the species are longer than the fore ones, as in the roe, which gives it greater security in ascending and descending steep places. In swiftness it equals, if not surpasses the roe, running and springing with vast bounds, and with surprising elasticity. It frequently stops for a moment in the midst of its course to gaze at its pursuer, then resumes its flight. The fleetness of the antelope, indeed, was proverbial in the country it inhabited, even at the earliest times: hence the speed of Ashuel (2 Sam. 18) is beautifully compared to the tzebi; and the Israelites were said to be as swift as the antelopes (translate upon the mountains).

Most of these animals are brown on the back and under the belly, with a black stripe separating the two colours. Their tail is of various lengths, but in all is furnished with rather long hair; and their ears are beautifully placed, and terminating in a point. They all have

like the sheep; horns (as before observed) hollow, and curved, annulated with prominent rings or spirals not deciduous: they have eight broad, incisive teeth in the lower jaw, but none in the upper. The antelope forms a very large genus, the greater number of which have been discovered of late years; for it seems very probable that only two species were distinctly known to the ancients, namely, the antelope *Cervicabra*, or African antelope, and the antelope *Bubalis*, or cervine antelope. Buffon describes twelve varieties; and we may now reckon upwards of thirty varieties of this interesting animal.

At the present amount of the list of Gazelles, most of them pretty nearly resemble the deer in form and delineation of shape. They properly fill up, as has been already observed, the interval between the goat and the deer; but it is difficult to tell where the former species terminates and where the latter may be said to commence. When we compare the Gazelles with each other, we shall find many distinctions between many of them. The turn and magnitude of the horns, the different spots on the sides, and a difference of size in each, are chiefly the marks by which their varieties are to be known; but their way of life, their nature, and the peculiar swiftness of most of them come under one description.

Gazelles are, in general, inhabitants of the warmer countries; and contribute, among other embellishments, to the beauty of those forests that are forever green. They are seen feeding in herds on the sides of the mountains in the shade of the woods; and fly all together at the smallest approaches of danger.

Bound with such swiftness, and are generally so tame, that dogs or men vainly attempt to pursue them. For their ease and safety they traverse those precipices which would be quite impracticable to other quadrupeds; nor can

some of them be overtaken by any animals but those of the winged kind. Accordingly, in those countries where the fleetest are chiefly found, they are pursued by falcons; and this admirable manner of hunting forms one of the principal amusements of the higher ranks of people all over the East. The Arabians, Persians, and Turks, employ for this purpose that kind of hawk called the *falcon*, gentle, with which, when properly trained, they go forth on horseback among the forests and the mountains, the falcon perching upon the hand of the hunter. Their expedition is conducted with profound silence: their dogs are taught to keep behind, while the men, on the fleetest coursers, look round for the game. Whenever they spy a Gazelle at the proper distance, they point it out to the falcon, and encourage the bird to pursue it. With the swiftness of an arrow the falcon flies to the animal, well conscious of its danger, endeavours, but too late, to escape. The falcon soon coming up with its prey, fixes its talons one into the animal's cheek and the other in its throat, deeply wounds it. On the other hand, the Gazelle attempts to escape, but is generally wounded too deeply to do so. The falcon clings with the utmost perseverance, and leaves its prey till it falls; upon which the hunters behind approaching, take up both, and reward the falcon by applying them to the dead animal's throat, & sometimes betimes to fix upon that particular part of the Gazelle, either its back or its haunches, which would easily escape among the mountains, and the hunter would also lose his falcon.

They sometimes hunt these animals with this carnivorous and fierce creature having been and domesticated, generally sits on horseback

r, and remains there with the utmost composure until the Gazelle is shown: it is then that it exerts all its artfulness; it does not at once fly at its prey, but approaches slowly, turning and winding about until it comes to a proper distance, when all at once it bounds upon the heedless animal, and instantly kills it and sucks its blood. If, on the other hand, it misses its aim, it rests in place without attempting to pursue it any farther, being very much ashamed of its own inability.

There is still another way of taking the Gazelle, which is not so certain nor so amusing as either of the former.

A tame Gazelle is trained for this purpose, which is to join those of its kind wherever it perceives them. When the hunter, therefore, sees a herd of these animals together, he fixes a noose round the horns of the tame Gazelle in such a manner that if the rest but touch it they become entangled; and thus prepared, he sends his tame Gazelle among the rest. No sooner does the tame animal approach the males of the herd instantly sally forth to oppose it, and in butting with their horns, are caught in the noose, when both struggling for some time, fall together to the ground; till at last the hunter comes up, disengages the tame one, and kills the other. •

On the whole, however, these animals, whatever be the arts used to pursue them, are very difficult to be taken; and they are continually subject to alarms from carnivorous beasts, or from man, they keep chiefly in the most solitary and inaccessible places, and find their only protection from the dangerousness of the spot whither they re-

Professor Pallas, in his "Travels through different Provinces of Russia and Northern Asia," has also described a method of hunting the antelope, which is the principal amusement of the *Tonguses*, who inhabit the heaths

of Daouria, beyond the lake Baikal. They choose purpose level and open tracts, near a river, not forest. In autumn, at which time their horses are vigorous, they form companies of one hundred or two hundred hunters, all on horseback, attending horses. Each has a trained dog, and they are armed with bows and arrows.

This chase commonly lasts several days. Having arrived at the rendezvous, they send forward three sharp-sighted huntsmen to get a view of the game on the heights or mountains, who stop to wait for their companions as soon as they perceive the antelopes. When the troop comes in sight the scouts make signals or by some evolutions of their horses signify the place which the antelopes feed, and the course that must be taken in order to come up with them. The troop then breaks into several divisions, and the hunters separate to the distance of sixty or eighty fathoms from each other in order to form a great ring. Those on the wing rush towards the pasturage of the herd, and endeavour to conceal themselves behind the heights till the antelopes are surrounded: the ring then closes. When, on the approach of the hunters, the antelopes attempt to escape, they rush on them, chasing them from one party to another, terrifying them with their shouts, and the whistling of their arrows, which, for that purpose, are furnished with a point of bone, perforated beneath the head: in this way they kill all that they can reach. This chase is most successful when the scene of it lies near a river, or a thicket forest, as the antelopes or heath-goats rush to the water, though long and furiously harassed, or strive to escape by sudden and vast leaps, and the troops of their pursuers. They are almost always killed in the forests; for no sooner are they hunted

are so bewildered among the trees as to be unable to take a hundred paces, but run their heads against every tree, and soon fall breathless.

The race of antelopes is famous for the concretion known by the name of *bezoar*. This word is supposed to be derived from the Arabic language, where it signifies antidote or counter-poison. It is found in the stomach and intestines of many animals, and brought over principally from the East Indies. Like all other animal concretions, it is found to have a kind of nucleus, or hard substance within, upon which the external coatings are formed; for, when being sawn through, it is seen to have layer over layer, as an onion.

This nucleus is of various kinds: sometimes the buds of a shrub, sometimes pieces of flint, stones of plums, arinds, seeds of cassia, and sometimes a marcasite. The stone itself varies from the size of an acorn to that of a pigeon's egg; and the larger it is the more valuable it is reckoned—its price increasing like that of a diamond. There was a time when a stone of this kind, weighing six ounces, sold in Europe for above two hundred pounds; but at present the price is greatly fallen, and they are in very little esteem. The bezoar is of various colours, sometimes of a blood colour, sometimes of a pale yellow, and of all the shades between these two. It is generally glossy, smooth, and has a fragrant smell, like that of ambergris. It has been given in vertigoes, epilepsies, irritations of the heart, colic, and jaundice; and in those places where the dearness, and not the value of medicines, is consulted, in almost every disorder incident to the stomach. In all cases it is perhaps equally efficacious, acting as an absorbent power, and possessing virtues not superior to common chalk, or crabs' claws. Judicious physicians have, therefore, discarded it; and this celebrated

medicine is now chiefly consumed in countries where knowledge of nature has been but little advanced. When this medicine was in its highest reputation, many were used to adulterate it; and many countries endeavoured to find out a bezoar of their own.

Thus we had occidental bezoar, brought from America; German bezoar, oriental bezoar, cow bezoar, and man bezoar. Yet whatever virtues ignorance may impute to these stones, experience has found but few cures performed by them; but it is well known that they often prove fatal to the animal that bears them.

There is a bezoar found in the gall-bladder of the hog and thence called hog bezoar, which is in very great esteem, but with as little justice as the former.

There has been much conflicting testimony among naturalists regarding the animal which produces the true oriental bezoar, which was once in such great repute all over the world for its medicinal virtues. Rumphius, Seba, and some others have erroneously stated it to be the production of apes; but the concretions found in these are quite different from the oriental bezoar, which is certainly produced by a *ruminating* animal. The substance of the first is soft and porous; that of the latter is dry, and formed of concentric layers; and, from the testimonies of Thevenot, Chardin, and Tavernier, it is that it is obtained more from sheep, and wild or goats, than from the Gazelles.

The ancients, both Greeks and Latins, had no knowledge of the bezoar. Galen is the first who speaks of it against poison. The Arabs likewise praise the bezoar for possessing those qualities; but neither the Greek nor Arabians, particularly describe the animal which produces it. Andreas Lacuno, a Spanish physician, says that the oriental bezoar is extracted from a certain

which feeds upon the mountains of Persia." Amatus nus confirms these remarks; and adds, that this ain goat greatly resembles the stag. Monard, who the two last, still more positively affirms that this is produced from the internal parts of a mountain India. Garcias ab Horton says, that in Khorassan Persia there is a kind of he-goat called pasans; at it is in their stomachs the bezoar is found. Kaemp-minute observer of nature, being in the province of in Persia, says, that he went with the natives of that y to hunt the pasan, and he saw them extract the stone from that animal. This he affirms to be the oriental bezoar; but from the engraving he has given animal, we might be induced to believe his pasan he-goat, and not a Gazelle, as he has given to it a resembling that of the goat. Chardin positively as- that oriental bezoar is found in the wild and domes- ats on the shore of the Persian Gulf, and in many ces of India; and that in Persia it is also to be met a sheep. Dutch travellers say the same; but some a writers ascribe the production of the true oriental to the algazel, others to the pasan. Both these an- produce bezoar of a superior kind; both inhabit the ountry,—the one living on the mountains, the oth- the plains; and it is probable that there exists but ifference in the quality of this material, which both n certainly produce. What can we infer from such ty of testimonies and opinions? It is clear, then, e oriental bezoar is not the production of one par- species of animal, but of many different ones, par- y the whole of the Gazelle and goat kind, which ; upon odoriferous plants and herbs, give such a g fragrance to these concretions. With respect to idental bezoars, we can affirm, they proceed neither

from goats nor Gazelles; for, instead of Gazelles only meet with roebucks in the woods of America, mas and pacos, instead of wild goats and sheep,—of quite a different nature; but both the pacos and many other animals of America, produce bezoars, and if we comprehend under this name all concretions of this nature which are found in different animals, we rest assured that there is scarcely an animal that does not produce some of them, either in the stomach, intestines, kidneys, bladder, or even the heart, not excepting birds and alligators. We may, therefore, conclude in general, the bezoar is only a residue of vegetable matter, which is not to be found in carnivorous animals; it is peculiar to those which feed on plants; that in the mountains of Asia, the herbs being stronger than in other parts of the world, the bezoar which is there produced has more esteemed virtues than any other; that in America, where the heat is less and the mountain herbs are weaker, the bezoars produced there are also inferior; in Europe, where the herbs are still weaker, and in the valleys of both continents, where they are coarser, bezoars are produced, but only *agagropili*, and the most common, merely of hair, roots, or filaments, which the animal is unable to digest.

THE HARNESSSED ANTELOPE.

THESE animals, great herds of which are found in the woods and plains of the country of Pader, are most singularly marked with two longitudinal white lines running along each side, crossed by two other white lines from the back, and also by three white lines running downwards from the rump to the thigh. These white lists upon a brown or tawny ground give the general colour of the animal, has very

ce of harness; from which circumstance it has derived the name of the harnessed Antelope. Beneath each eye a white spot; the under part of the neck and a part of the face are white; and there are several whitish spots



on the thighs. The forehead and ridge of the back are dark. The horns are nearly straight, tapering, sharp-pointed, and inclining backward; and they have two spiral ridges along their whole length, which is about nine

THE STRIPED ANTELOPE.

This animal, which has been wrongly named Condor, is as large as a stag, and is also remarkable for a dark line extending along the back, and several white stripes (generally seven in number) across from that, down the sides towards the belly and thighs. The horns are remarkable for their length, which is about four feet,—are spirally, and compressed sideways, with a ridge on each side following the wreaths: they are very close at the base, and two feet seven inches distant at their points, and are round and sharp. In the upper jaw is a hard substance, disposed in ridges.

This species inhabits the Cape of Good Hope. It leapt to an amazing height: Dr. Forster says, he saw one leap a fence ten feet high.

THE SCYTHIAN ANTELOPE.

THE Scythian Antelope or Saiga is the only one of the species that is found in Europe. The general form of the body very much resembles that of the domestic goat; and like that animal, it has a strong scent, and is fond of salt; but its horns are those of the Antelope, being marked with very prominent rings, with furrows between: they are about a foot in length, the tips smooth, of a pale yellow color and semi-transparent. During summer the hair is very short, and of a gray hue, mixed with yellow; the cheeks whitish, forehead and crown hoary, covered with long hairs; the under side of the neck and body white. The winter coat is long and rough; the tail about four inches long, ending with a tuft. It is equal in size to the fallow deer, and the female is destitute of horns.

These animals inhabit all the deserts from the Danube and Dnieper to the river Irtysh, but not beyond: they are therefore found in Poland, Moldavia, about Mount Caucasus and the Caspian Sea, and in Siberia, in the open deserts, where salt springs abound, feeding on salt, and the acrid and aromatic plants of those countries. The females are in a state of gestation during the winter and bring forth in May, in the northern deserts. They have but one at a time; and the young are covered with a soft fleece like a newly-dropped lamb. They are highly migratory: late in autumn, in the rutting season, they collect in flocks of thousands, and retire into the deserts: in spring they separate into little flocks and turn northward. They rarely all lie down at the same time, but by a providential instinct, some watch

ping watch ; and when they are tired, they seemingly give notice to those which have taken their rest, who instantly arise and relieve the sentinels of the preceding hours ; and thus they often preserve themselves from the attack of wolves and huntsmen. They are exceedingly swift, and will outrun the fleetest horse or greyhound ; but, partly through timidity, and partly on account of the shortness of their breath, they very soon become the prey of the hunter. If they are but bitten by a dog, they instantly fall down ; nor will they even offer to rise again. They are sometimes shot by the hunter ; and are also taken by the black eagle, which is trained for that purpose. In summer they are almost purblind, which is another cause of their destruction. This is occasioned by the heat of the sun, and the splendour of the yellow desert, where they live in a wild state. They seem to have no voice,—yet when brought up tame, the young utter a sort of kind of bleating, like the sheep.

THE WOOD ANTELOPE.

Their horns are about ten inches long, of a black colour, and have three sides wreathed in a spiral direction towards the top ; at the bottom they are rough, in consequence of the number of wavy rings, which, however, do not rise much above the surface ; but at the top they are round, sharp-pointed, and as smooth as if they had been polished. This animal is about two feet and a half high, of a dark brown colour, with two large round white spots on each cheek, and several smaller white ones scattered over the haunches ; a narrow line of white hair, too, extends along the back, from the neck to the tail, but is not very perceptible, it being partially hidden by the length of the dark brown hairs on the top of the back. There are also several nar-

row bands of white hair crossing the back: on the other parts of the body the hair is long, like that of the goat.

The Wood Antelope is found chiefly in the woods and groves about the Cape of Good Hope. It runs but slowly when compared with the speed of some of the Antelope species, and is sometimes caught with dogs. When it runs it carries its head straight forward, laying its horns back upon its neck to prevent their being entangled in the bushes; but as the female is without horns, she runs more freely through the forest, and is not so easily caught as the male. The latter, when it finds no resource from the dogs by its speed, will boldly put itself in a posture of defence, by kneeling down when about to butt; and, in that position, sells its life at a dear rate, killing and goring the most spirited hounds which first venture to the attack. The voice of this animal resembles the barking of a dog.

THE BLUE ANTELOPE.

THE horns of this species are sharp-pointed, taper, arcuated, bending backwards, marked with twenty prominent rings, but smooth towards the point, and about twenty inches in length; the ears long, and sharply pointed; beneath each eye is a large white spot; the hair is long, and the tail is about seven inches in length, terminated by a tuft of hair about six inches long. This animal is larger than the roebuck. Its colour, when alive, is a fine blue, of a velvety appearance; but, when dead, it changes to a bluish gray, with a mixture of white.

It is a very shy animal, and inhabits the hottest parts of Africa; yet is occasionally found near the Dutch settlements at the Cape of Good Hope; but in the more uncultivated parts of the country they are met with in great abundance, and of various colours. Many of them are beautifully spotted with red, white, and brown. Pennant

"This is the species which, from the form of the head and the length of the hair, seems to connect the Gazelle and Antelope race."

THE SPRINGER.



The predominant colour of this animal is a pale yellow-brown; the belly, breast, and inside of the limbs, are white; as is also the head, excepting a dark brown list, which passes from each corner of the mouth, over the forehead, to the base of the horns. From the tail half way up back is a stripe of white, bounded on each side by a dark brown list, and a stripe of the same colour extends on each side, from the shoulders to the haunches, forming a contrasting boundary between the snowy whiteness of the belly and the rusty colour of the sides. The tail is slender, not being thicker than a goose-quill at the base part, which reaches to nearly the first joint of the hind leg; the ears are of an ash colour, tipped on the edges with fine light gray hairs. The hair in general is short and fine; but the dark line which borders the white con-

sists of longer hairs, which the animal is able to extend, to the breadth of eight or nine inches, particularly when taking a leap. The height of this animal is about two feet and a half; the length of the horns, measuring them along the curvature, is nine inches; the distance at the base, where they are nearly three inches thick, is not more than one inch; and they gradually from thence to the distance of five inches, when they curve inwards, and nearly approach each other at the tips. The horns are of a deep black colour, annulated above half, and are smooth towards the top, and terminate in a point.

This animal inhabits the Cape of Good Hope, where it is there called the *spring bock*, from the prodigious leaps it takes when any person suddenly appears; and when alarmed, it has the power of extending the white part about the tail into the form of a circle, which restores its linear form when the animal is tranquil. When pursued, it is pleasing and curious to see the animals leaping to a considerable height over each other's heads, and they will sometimes take three or four leaps successively. In this situation they seem suspended in the air, looking over their shoulders at their pursuers, and describing the radius of the white part about the tail in a most beautiful manner. They are extremely swift, and it is no good horse that can overtake them. They migrate annually from the interior of the country in small herds, and continue near the Cape for two or three months, and then retreat towards the north in herds of many thousands, covering the great plains for several hours in the day.

They are attended in these migrations by numbers of lions, hyænas, and other wild beasts of prey, which commit great devastation among them. They also

migrations, in seven or eight years, in herds of thousands, from the north, being probably compelled to their haunts in the Terra de Natal by the excess of that region, where it sometimes happens that no rain falls for two or three years. In such seasons they spread over the whole country of which they desolate, not leaving a blade of grass. Their flesh is excellent; and, with other Antelopes, they form the venison of the Cape.

THE ELK ANTELOPE.

It is said that this animal has been improperly called the Buffon, the name properly belonging to his name. It inhabits India, Congo, and the southern parts of Africa, and is one of the larger kind of gazelles, but in height at the shoulders, is thick-bodied, and made, but the legs are slender. The horns are straight, two feet in length, marked with two spiral ribs, running almost two-thirds of their length smooth towards the ends, which are turned backwards; the forehead is broad, and has a stripe of white hairs extending down the front of the face; its ears are large, and its breast has a sort of dewlap, at the bottom of which is a tuft of black hair.

The animal is of a dark ash colour, inclining a little to being tinged with red. Along the neck and back there is an upright mane, quite black; the tail, which reaches to the first joint of the leg, is covered with shaggy hair, and is terminated with a tuft of black hair. Females have horns similar to the males, but

In some species the *sinus lacrymalis* is wanting. They are gregarious; but the old males are often solitary. They graze, especially about the breast and heart, so

that they are easily caught; and when pursued, will sometimes fall down dead during the chase. They run but slowly, and when roused always go against the wind; nor can the hunters (even if they front the herd) divert them from their course. Their flesh is delicious and juicy.

THE BROWN ANTELOPE.

THIS kind is less than the roebuck; has horns like the last; face, back, and sides, of a very deep brown, the latter bordered with tawny; belly and inside of the legs white, above each hoof is a black spot; the tail black above, and white beneath. It inhabits Bengal.

THE BARBARY ANTELOPE.

WE find these animals in Persia, India, and the north of Africa, where they live in large troops, and these, when attacked, form a ring, and present their horns to their enemy. Their height is about two feet four inches, and the length, from the nose to the tail, about three feet nine inches; the horns about twelve inches long, round, inclining first backwards, bending in the middle, and then reverting forwards at their ends, and annulated with about thirteen rings on their lower part: the upper side of the body is of a reddish brown, the lower part and haunches white; along the sides the two colours are separated from each other by a strong dusky line. The Barbary Antelope is easily tamed; and its habits furnish numerous images to the sprightly poetry of the Arabs.

THE CORINE ANTELOPE

Is a variety of the former, from which it only differs in having the horns more slender.

THE LEUCORYX ANTELOPE

species which inhabits Gow Bahrein, an island in the Gulf of Bassora: it has long horns, very slightly incurved, slender, black, pointed, and annulated partly, from the base; the body is thick and inelegant, but the limbs are better proportioned; the nose is broad and thick, resembling that of the ox; and the ears somewhat slouching. It is about the size of a small cow; the body is of a pure tawny; the middle of the face, the sides of the cheeks, and the limbs, are tinged with red; the tail is rather long, and ends in a tuft at the end. The rutting time is in autumn, and they bring forth in the spring.

THE KEVEL, OR FLAT-HORNED ANTELOPE.

This is the flat-horned Antelope of Pennant: it has large horns, which are flattened, and bent in the form of a sickle; the fur is yellowish, with pale streaks, and a dark-brown band runs along each side. This animal inhabits Barbary, Senegal, and Persia. It is about the size of a fallow roe, lives in large flocks, and, like most species of Antelope, is reckoned very delicate food, though it has a musky odour when alive. In both sexes the horns are surrounded with prominent rings, usually from fourteen to eighteen in number, except the ends, which are smooth. They are bent in the same manner with those of the Barbary Antelope, or dorcas; and in general the two animals resemble each other very much, except that the horns of this species are flattened, and have a greater number of rings.

THE WHITE-FACED ANTELOPE

Very similar to the preceding, but larger. Like that, the horns are flattened; but those of the female are said to

be smooth; the face, and the space between the horns, are of a pure white; the cheeks and neck are of a fine bright bay; sides, flanks, and shoulders of a deep brown, separated from the belly by a broad band of a dark colour. In size it exceeds the buck or fallow deer. It inhabits the country north of the Cape of Good Hope, is exceedingly swift, and makes large bounds, even on the most rocky places and on the steepest precipices, where it cannot be easily caught with hounds.

THE GAMBIAN ANTELOPE.

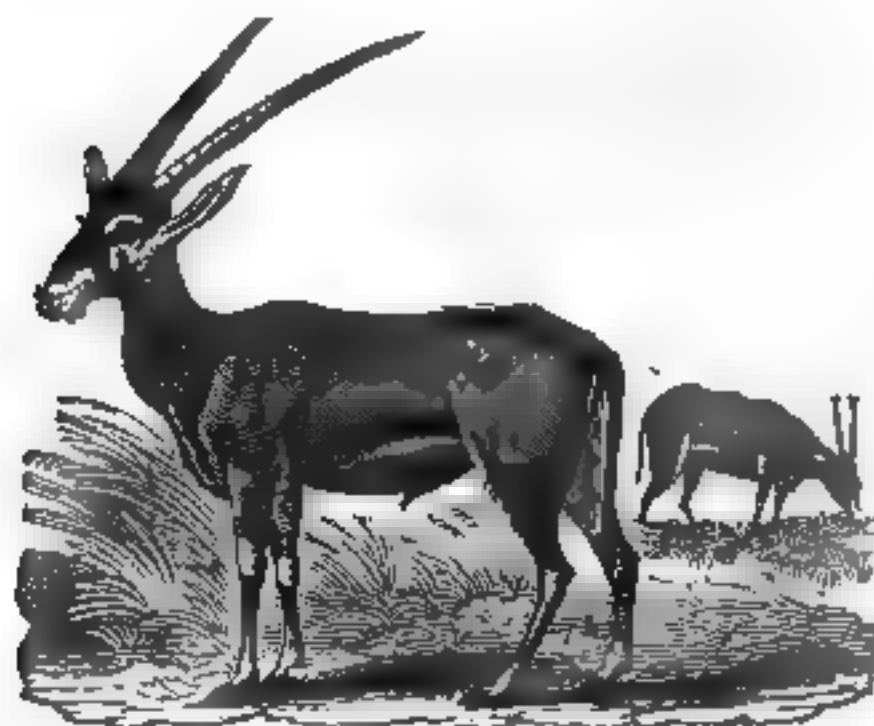
THIS is the Lerwee of Shaw. It inhabits Africa, chiefly about the rivers Gambia and Senegal; is about the size of a fallow deer, and is remarkable for a tuft of hair on the nape of the neck, and for having long brushes of hair on the knees of the fore legs. Its horns are about thirteen inches in length, and five and a half in circumference at the base, where they are pretty close, and the points also approach near to each other, but they are more distant in the middle, are bent backwards, and are wrinkled.

THE CHINESE ANTELOPE.

THE Monguls call this species Dseren; the Chinese Hoang Yang and Whan Yang, or Yellow Goats. They abound in the country of the Mongul Tartars, and the deserts between Thibet and China, and along the river Amur, to the Eastern Sea. They are very swift, take prodigious leaps, and when frightened will bound over a space of sixteen or eighteen feet at one spring. They delight in dry and rocky plains, and shun water; nor will they go into it even to save their lives, when driven by men or dogs to the brink of a stream. They are likewise afraid of woods, and always avoid them. They herd together in small flocks in the spring and summer, and collect in great

ers in the winter. In running they form a file or line, one after another—an old one usually leading way. On the approach of winter their hair grows long, and hoary, so that at a distance it appears almost white. In the beginning of May the animal changes its coat for one very short, close, and tawny; the neck is prominent, in consequence of the largeness of the rump; and they have a large pouch under the belly. The length of the male, from nose to tail, is about four feet and a half; the head rather thick, with horns about two feet long, opaque, of a yellow colour, annulated to the ends, reclining backwards, with their points meeting towards each other.

THE PASAN, OR GEMS-BUCK.



The animal is about the size of a fallow deer; the horns distinctly annulated, and three feet in length, the points very sharp, and about fourteen inches asunder; the lower part of the face is white, with a black mark, which extends to the base of the horns, passing down the side, where it joins a transverse band on the nose; from

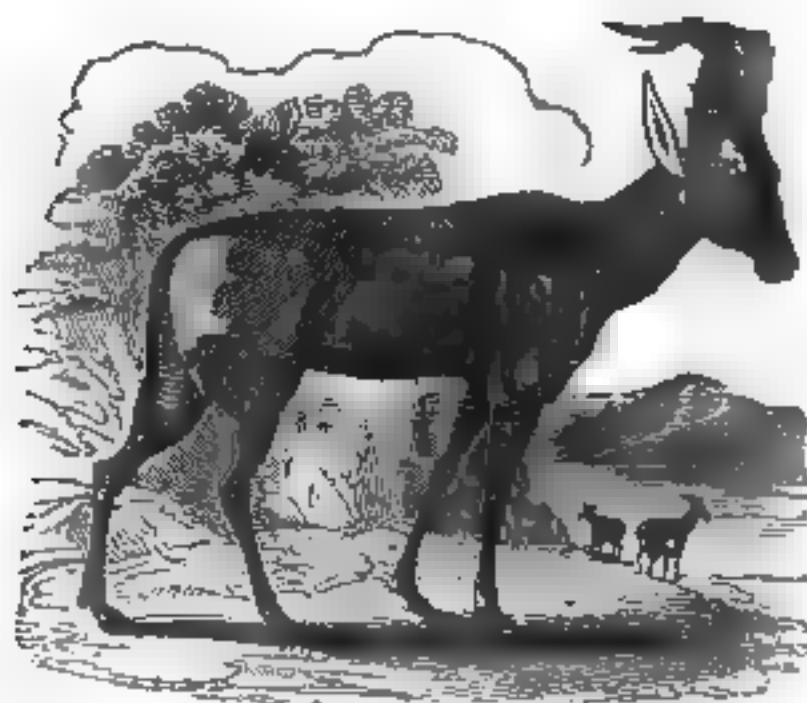
from this springs another mark, pointing upwards to the eye, and reaching downward to the throat. The head and sides are of a reddish ash colour; the belly and legs are white. The white colour of the former is divided on the sides from the reddish, ash-coloured upper parts, by a broad, longitudinal, dark band; the thighs and upper part of the fore legs are also marked with the same colour. The tail is nearly two feet long, and is covered with long black hairs. It inhabits Persia, India, Egypt, Ethiopia, and the Cape of Good Hope. This singular species, which lives in pairs, and not in herds, is the Oryx of Ælian, one of them being caught which had lost a horn, gave rise to, or rather continued, the stories of the unicorn, which there has been so much dispute.

It is a beautiful animal, and has none of that timidity which generally marks the character of the Antelope. On the contrary, if closely pursued or wounded, will sit down on its haunches, and keep both sportsman and dog at bay. It employs its long, straight, sharp-pointed horns used in defence by striking back with its head, which renders it dangerous to approach it. Dogs are very frequently killed by it; and no peasant, after wounding the animal, will venture within its reach till it be dead, or its strength at least exhausted. The flesh of the Gems-Buck is reputed to be the best venison that Africa produces.

THE HART-BEEST.

THIS animal is supposed to be the Bubalus of the ancients, and is the most common of all the larger gazelles in Africa. Its height to the top of the shoulders is about four feet: the form of the body is a mixture of the steers and heifer; the tail is rather more than a foot long, as in the ox, terminated by a tuft of hair; the horns are very black, and embossed with rings of an irregular form:

not close at the base, diverging upwards, and at the tip bending backwards in a horizontal direction, almost to the point, which are distant from each other. Some of these horns are eighteen inches long, and above ten inches in diameter at the base. The head is rather large, resembling that



that of a deer; and the eyes are placed very high. The general colour of this animal is a dark cinnamon, except the inner part of the thighs, which are white: the face and the head is marked with black, as is likewise the tip of the legs. There is a pore about an inch below the eye, from which a matter is distilled: this the Hottentots preserve as a rare and valuable medicine. The broad and high forehead, together with the asinine tail of this animal, render it less handsome than most of the tribe of Antelopes. They associate in great numbers, and although they seemingly gallop with a heavy step, they run as fast as any of the larger kinds; and when they have once got ahead of their pursuers, they are not inclined to turn round and gaze at them. Like the wood buffalo and nyi-ghau, this animal drops on its knees to the ground. The flesh is fine, and of an agreeable flavour, but

THE GNU.

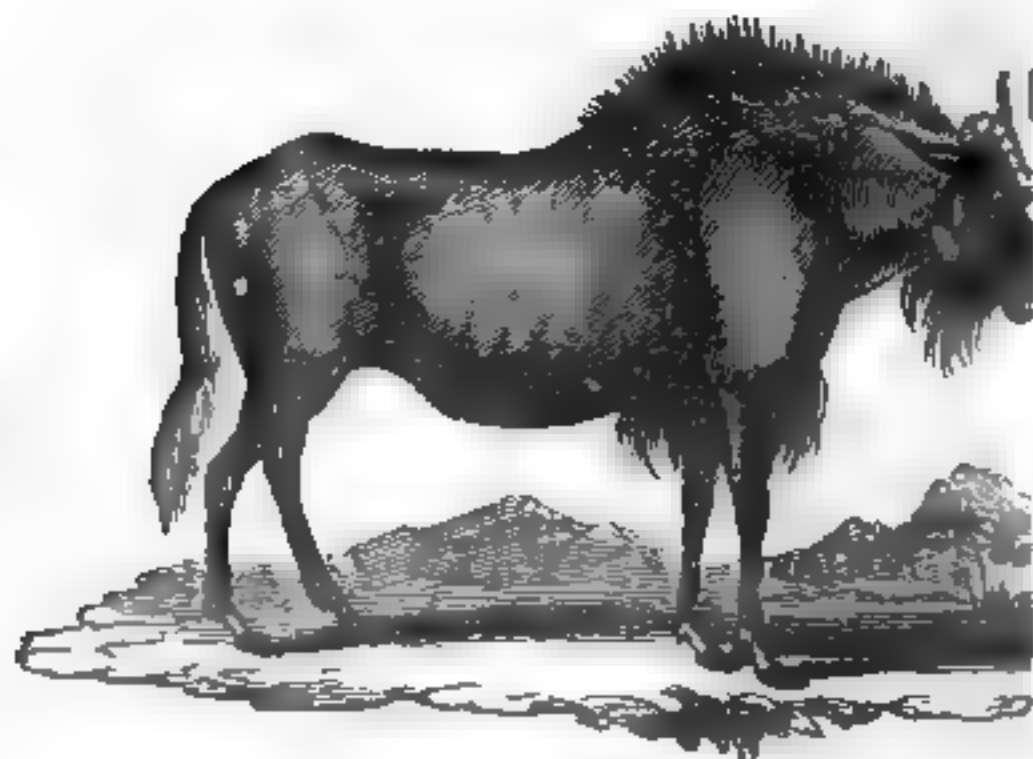
THE Gnu is one of the swiftest beasts that range plains of Africa. Mr. Barrows says, "The various descriptions that have been given of it, all differing each other, should seem to have been taken from rather than from nature, notwithstanding that one of them was for some time in the menagerie of the Prince of Orange, at the Hague. Nature, though regular and systematic in all her works, often puzzles and perplexes her systems, of which this animal affords an instance. In the shape of its body it evidently partakes of the horse, the ox, the stag, and the antelope.

"Its head is about eighteen inches long, the upper part completely guarded by the rugged roots of the horns spread across the forehead, leaving only a narrow space between them, that wears out with age, as in the instance of the buffalo; the horns project forward twelve inches, then turn in a short curve backwards ten inches: the distance from the root to the point is only nine inches. Down the middle of the face grows a sort of black hair four inches in length; and from the under lip to the throat a ridge somewhat longer. The orbit of the eye is small and surrounded by long white hairs, that, like some of the dii, diverge and form a kind of star: this radiation gives to the animal a fierce and uncommon look. The same sort of vibrissæ is thinly dispersed over the face. The neck is little more than a foot long: on the upper part is a mane extending beyond the shoulders, seven or five inches in length; the hair like bristles, black in the middle, and white on each side: this mane appears to have had been cut and trimmed with nice attention. A sort of black hair from six inches to a foot in length extends from the fore part of the chest, under the fore-legs, to

ng of the abdomen. The body is about three feet
 nches long. The joints of the hipbones project high,
 form on the haunches a pair of hemispheres. The
 s two feet long, flat near the root, where the hair
 s only at the sides; this is white, bristly, and bushy.
 entire length, from the point of the nose to the end
 e tail, is seven feet ten inches; and the height three
 ix inches. The colour is that of a mouse, with a few
 yinous straggling hairs on the sides. Like the mare,
 s only two teats; and all its motions and habits are
 e. Though a small animal, it appears of considerable
 when prancing over the plains. The Gnu might be
 dered as an emblem of unbounded freedom, with the
 s of supporting it. It possesses in an eminent de-
 strength, swiftness, weapons of defence, acute scent,
 quick sight. When they happen to be disturbed, the
 e herd begin to draw together, and to butt each other
 their horns, to bound and play their various gambols,
 which they gallop off to a distance. Their motions
 extremely free, varied, and always elegant. Fierce
 icious as this animal certainly is in its wild state, yet
 obably might not be very difficult of domestication.
 uccessful attempts, however, have yet been made to
 it. The flesh is so like that of an ox, both in appear-
 and taste, that it is not to be distinguished from it.”
 ere is another variety of the Gnu, a male and female
 hich have lately been exhibited at Cross’s menagerie
 ll-Mall East; and in their appearance partake rather
 of the antelope tribe than the preceding. Mr. Prin-
 who had seen this variety in its native regions, ob-
 s, “that the Gnu forms a graceful link between the
 lo and the antelope. Possessing the distinct features
 h, according to naturalists, are peculiar to the latter
 , the Gnu exhibits at the same time in his general as-

NATURAL HISTORY.

, figure, motions, and even the texture and taste. qualities which partake very strongly of the character. Among other peculiarities, I observed, the



the buffalo or the ox, he is strangely affected by the color of scarlet; and it was one of our amusements, when approaching these animals, to hoist a red handkerchief on a pole, and to observe them caper about, lashing their tails with their long tails, and tearing up the ground with their hoofs, as if they were violently excited, and rearing down upon us; and then, all at once, when about to fire upon them, to see them bound away, going prancing round at a safer distance. When they are reported to be sometimes rather dangerous to the huntsman; but though we shot several at different times, I never witnessed any instance of this. On one occasion a young one, apparently only a week or two old, whose mother had been shot, followed the hunters and attempted to rear it on cow's milk. In a few days it appeared quite as tame as a common calf, and was thriving; but afterwards, from some unknown

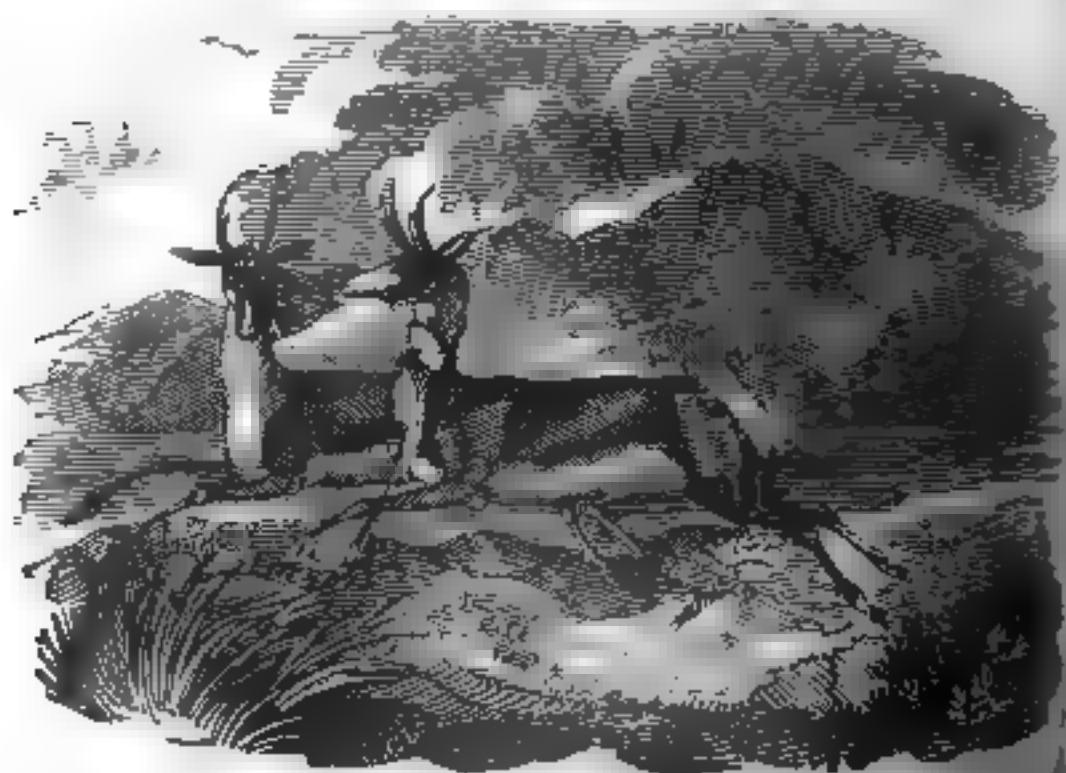
d and died. I heard, however, of more than one in that part of the colony, where the Gnu, thus young, had been reared with domestic cattle, and some so tame as to go regularly out to pasture with us, without exhibiting any inclination to resume its freedom; but, in consequence of a tendency which others say they evinced to catch, and to communicate cattle a dangerous infection, the practice of rearing curiosities has been abandoned."

THE KOKOON.

not aware that the Kokoon has hitherto been described by any naturalist, and we shall quote our account. Barrow, who, in his *Voyage to Cochin China*, says, "one of the Dutch boors had the good fortune to shoot a animal that was totally unknown to any person in the colony. It was called by the Booshwanas the Kokoon. In general appearance it bore a resemblance to the gnu, but of a much larger size. It measured in height about five inches; in length, from the head to the rump, about three feet. The head was one foot ten inches long; ears small; tail, of long black hair, three feet three inches, being that of a horse; neck uncommonly thick in proportion to the body. It had a mane very unlike that of a horse, flowing over its shoulders, and continuing to the hind of the back. The forehead, like that of the buffalo, was covered with an osseous excrescence, being, in fact, the base of the horns, which were terminated in fine point-mitities, like those of the gnu. From the centre of the forehead to the nose was an arched, or concaved process, covered with a ridge of long black hair; and on the cheek, a little below the eye, was a remarkable circular form, rather more than an inch in diameter, and apparently glandular, the surface being

made up of bundles of fine vessels, out of the orifices of which oozed a white viscons matter. Close under the glands grew tufts of black hair; a long black beard, like that of the gnu, covered the throat from the chin to the breast; the nose and mouth were like those of an ox, but more broad and flat. The general hue of the body was of an ash-coloured gray. It had neither the speed, the activity, nor the spirit of the gnu. Of this extraordinary animal Mr. S. Daniell made an accurate drawing."

THE COMMON ANTELOPE.



Of this numerous tribe of animals, there is perhaps no species so truly elegant in its appearance as this; and though it is one of the commonest, yet its habits are little known. It is very numerous in Barbary, and in the northern parts of Africa. In size it is rather smaller than the fallow deer. Its colour is a dusky brown, marked with red; the belly, breast, and inside of the limbs, white; and on the head, back, and outside of the limbs, the hair is darker than on any other part; the orbits of the eyes

and there is a small patch of the same colour on of the forehead; the tail is short. The horns, about sixteen inches long, are black, distinctly almost to the top, and have three curves: the sides of the lyre, were frequently made of these appears from ancient gems. The female is f horns, and may also be known by a white stripe ds.

owing incident is related by Major Denham. also this day a dish of venison, one of the Arabs ceeded in shooting two gazelles, many of which d our path for the last three days. On finding ae, only a few days old, the tawny wily rogue ay down in the grass, imitated the cry of the



, and as the mother came bounding towards the
not her in the throat."

THE SWIFT ANTELOPE.

THIS Antelope has its horns hooked forward at the tip. The upper parts of the body are of a tawny yellow, the under parts white, with a white spot on the chest. It is the dama of Pliny, Gesner, Ray, &c., and the swift antelope of Pennant. It inhabits Senegal, and is thirteen inches in length from the nose to the origin of the tail; and two feet eight inches high at the shoulder. The greater part of the body is white; but the back, part of the sides, and the head, are tawny, or yellow. There are, however, varieties as to colour.

Both sexes have round horns, about eight inches long, bent or hooked forwards, and sharp-pointed. The only six fore-teeth in the lower jaw. The Nanguer is the swiftest of the genus, and can be but rarely taken; it is easily tamed. Ælian compares its flight to the noise of a whirlwind.

THE RED ANTELOPE

Is very similar to the preceding, with horns five or six inches long, and a half long, having one or two slight rings at the base. The ears are much longer than the horns; the hair is short and on all parts of a reddish colour, but palest on the belly. It inhabits Senegal and the Cape, is about two feet three inches in height, and four feet in length.

THE SENEGAL ANTELOPE

THE horns of this species are thick, and annulated close at the roots, much bent in the middle, then approximating, and receding at the ends, which are smooth, sharp, and bent backwards. This animal, which inhabits Senegal, is a large species, being seven feet long. The head is large and clumsy, with long ears; the horns are about seven

length, and are surrounded with fifteen prominent
 he head and body are of a reddish brown colour,
 arrow black list down the hinder part of the neck ;
 p is a dingy white ; and there is a dusky mark on
 ee, and above each fetlock joint. The tail is about
 ng, and is covered with longish black hairs.

THE BEZOAR ANTELOPE.

ecies inhabits India, Persia, Egypt, and Ethiopia :
 swiftly up hill, but slowly on level ground. It is
 ous, and is easily tamed. The general colour of
 s red, with a white breast, belly, and buttocks ; the
 e very long, slender, upright, and bending at the
 art towards each other. Some are smooth, and
 uch annulated.

THE AFRICAN ANTELOPE.

rns are very straight, short, tapering, sharp-pointed,
 htly wrinkled at the bases ; the head is of a reddish
 the upper parts of the body a greenish yellow,
 under parts of a whitish ash-colour ; the tail is
 rt. This Antelope runs with such swiftness, and
 uch large bounds, even upon the most rocky places,
 enerally eludes the hunter and dogs. It inhabits
 e of Good Hope.

THE GUINEA ANTELOPE.

mm, from whom this animal takes its name, was
 person that described the species. He represents
 nless ; but he evidently only saw the female, as
 e has straight black horns, about three inches long,
 annulated at the base, slender, and sharp at the
 The form of this little animal is most elegant, and
 it does not exceed eighteen inches. The colour

of the neck and body is brown, mixed with cinereous, and a tinge of yellow; the belly is white, as is also the under part of the tail, which is short; and it is remarkable for an upright, pointed tuft of strong black hair, rising from the top of its forehead, about two inches and a half high, between the horns. Beneath each eye is a cavity that contains a strong-scented oily liquor, which smells somewhat like musk; and when exposed to the air, becomes black and hard. This species lives among the brush-wood, in that part of Africa between Guinea and the Cape of Good Hope.

PRONG HORNED ANTELOPE.



THE Prong-horned Antelope appears on the banks of the Saskatchewan, sometimes a solitary animal, sometimes assembled in herds, of ten or twelve. Its sight and sense of smell are acute, and its speed is greater than that of any other inhabitant of the plains, although I have been informed by Mr. Prudens, who has resided forty years in that quarter, that when there is a little snow on the ground, it may, with some little management, be run down by a high bred horse. The Indian hunters have no difficulty in bringing an Antelope within gun shot by various strate-

as lying down on their backs, and kicking their air, holding up a white rag, clothing themselves shirt, and showing themselves only at intervals. and similar manœuvres, the curiosity of a herd of s so much roused, that they wheel round the ob- attention, and at length approach near enough the hunter to make sure of his mark. From this of the Prong-horned Antelopes, they are more d than any of the deer of the district they in- ey are however objects of little interest to the o eat their flesh only when the bison, moose, or not to be procured; and their skins are of no article of trade.

t northerly range of the Prong-horned Antelope 53° on the banks of the north branch of the van. Some of them remain the whole year on ranch of that river, but they are merely summer the north branch. According to Lewis and y also abound on the plains of the Columbia to f the Rocky Mountains. They frequent open l low hills, interspersed with clumps of wood, but et with in the continuously-wooded country. on the grass of the plains during the summer, e towards the mountains at the commencement and subsist there during that season on leaves

mal has a graceful form, and slender head, with , and long and delicate limbs. The horns are rise directly upwards. The upper parts of the of a clear yellowish brown colour, the under ure white.—*Richardson*.

NATURAL HISTORY.

THE ELAND.



This is a variety of the orcas of the Systema Naturae. This species is the largest and most forward of the Antelope tribe in Southern Africa; the legs, and hoofs, are completely bovine, as are also the head, the thick neck, and the remarkable dewlap of the male. Its size, its habits, and general appearance, are more of the ox than the Antelope; and the only affinity the latter is indicated by the horns and the tail. The male is distinguished by her tapering and slender legs, which are distinctly annulated at the base: her tail is also of a more delicate character than that of the male, and she has a peculiar oval mark on her rump, and a dark mark on each side of the upper part of her body. Both male and female have a dark mark upon the upper part of the throat, reaching downwards to the dewlap. We are met with, consisting entirely of females, at the circumstance of the males being much larger and of a tougher hide than the females; they are frequently always selected from the herd by the hunters, chased down with dogs, or killed with the spear, from the ease with which this animal is taken, and the value of its flesh as food, and of its skin for

if them now remain within the limits of the colony at Cape of Good Hope ; it must, therefore, in all probability, in a few years be a very scarce animal in the eastern angle of Africa. They are subject to a disease, which also makes great havoc in the herds, called the *Sticke*.

It is remarkable that the Eland herds with that singular animal the gnu, and with the quacha ; which circumstance perhaps account in some measure for the variety which species of the former exhibits.

THE CHEVROTAIN.

This is certainly the most beautiful of all the Antelope, as well as the smallest of all the cloven-footed quadrupeds, being not more than *seven* inches in height ; and their legs at the smallest part are not thicker than a tobacco-pipe. The horns are straight, about two inches long, and are as black and shining as jet. The hair of these elegant little creatures is a reddish brown, and inside of a beautiful yellow, very short and glossy. They are natives of Senegal and the hottest parts of Africa ; but also found in India, and in many of the islands adjoining that vast continent. They are said to be so active as to be able to leap over a wall ten feet high.

THE PERSIAN ANTELOPE.

In size and habit this animal resembles the roe. It lives in large flocks, and subsists chiefly on the *artemisa pontica*. Its horns are about thirteen inches long, smooth at the points, and bent in the form of a lyre ; the upper part of its body is of a brownish ash-colour ; the under parts pure white, with a yellowish-white stripe along each side. The head has a protuberance in front, and the knees are fur-

nished with tufts of hair. It inhabits that part of which lies between the Caspian and Euxine Sea

THE CORINE ANTELOPE.

THIS animal has horns that are also slightly bent shape of a lyre, short, smooth, and slender; the upper parts of the body are yellowish tawny; the under parts with a dusky stripe along each side, and two lines on each side of the face—the upper one white, and the other black. This species, which is less than a roe, and is found in Senegal, resembles the kevel in colour, swiftness, and musky odour.

THE INDOSTAN ANTELOPE

Is of a less elegant form than most of the other antelopes, and seems to resemble the camel, having a strong, thick neck, with a large lump on the shoulders, like the hump of the ox, tufted with hair: on the lower parts of the belly the skin hangs like the dewlap of a cow. The horns are about eight inches long, and bending forward. The height of the animal is about four feet. It lies down and rises like a deer; and its voice is a sort of croaking, or like the noise made by deer in the rutting season. It is found in the most distant part of the Mogul dominions.

INDIAN ANTELOPE.

IN size and form the Indian Antelope closely resembles the gazelle of the Arabs; it is however distinguished by several striking characters. Its horns are peculiar to the male, are spirally twisted and make a complete turn. They occasionally attain nearly two feet, and are surrounded by eleven or twelve set rings. The natural colours vary with the season.

but correspond in general pretty closely with those common deer. The animal pictured below, which is in the Tower Menagerie, is perfectly and purely white. In fact, an Albino.



The present species of Antelope is spread over the peninsula of Hindostan, and a part of Persia, but it is questionable whether it has been found in Africa, as is commonly supposed.

THE NYL-GHAU.

Of these interesting animals which have been brought to England have been obtained from Surat or Bombay; it is conjectured that they are indigenous in the province of Guzerat. The Nyl-Ghau is larger than any ruminant in this country except the ox, it being of greater size than the deer, and rather smaller than the black cattle; in its form there is a very evident mixture of both. In fact, too, it is classed with the antelopes, Dr. Hunter,

who first dissected and described it, apprehends that a new species. Its horns are seven inches long, six inches round at the roots, tapering by degrees, and terminate in a blunt point; the ears are large and beautifully spread to a considerable breadth: they are white on the edge and on the inside, except where two black lines mark the hollow of the ear with a zebra-like variety.



general colour of the animal is ash or gray, from a mixture of black hairs and white, most of which are half white towards the root, and half black; along the ridge of the neck and the back the hairs form a short and thin upright mane; at the throat is a shield-like mark of beautiful white and lower down, on the beginning of the convexity of the neck, there is a remarkable tuft of long black hair. The height of the animal is about four feet one inch at the shoulder. The female differs from the male both in size and thickness, she being much smaller, and in shape: resembling the deer, and having no horns. She usually bears forth usually one at a birth, and sometimes two.

The Nyl-Ghau has six grinders in each jaw, and cutting teeth in the lower one: it eats oats, is fond of grass and hay, and still fonder of wheaten bread;

It will drink two gallons of water. It is vicious and in the rutting season, but tame and gentle at other times and should it prove docile enough to be easily put to labour, its great swiftness and considerable strength might be applied to valuable purposes, as it is everywhere from experience that it will breed in this country. When the males fight, they prepare for the attack at a distance from each other, by falling down upon their sides and in this attitude they approach, and when sufficiently near, spring and dart at each other to great violence.

In a state of confinement they often fall into that posture without doing any mischief. They will, notwithstanding, attack mankind unprovoked. A labourer, who was employed over some pales which enclosed several of them, was struck by one of them flying at him with the quickness of lightning; but the wood-work which separated him from the animal was the means of his safety, as it dashed to pieces, and broke off one of its horns close to the base. The death of the animal, which happened soon afterwards, was supposed to be owing to the injury it received from the blow.

In the days of Aurungzebe they abounded between Delhi and Lahor, on the way to Cachemire; and they were the objects of chase with that mighty prince during his reign. They were enclosed in nets by his army of soldiers, which, being drawn closer and closer, at length formed a small space; into this the king, his omrahs, and his soldiers, entered, and killed the animals with arrows, spears, and nets; and sometimes in such numbers, that Aurungzebe used to send quarters as presents to all his great people, which proves that they are esteemed as good and delicious food.

THE MUSK.



ALTHOUGH the number and nature of quadrupeds at first glance seems very well known; yet, when we come to examine closer, we find some with which we are very partially acquainted, and others that are utterly unknown. There is scarcely a cabinet of the curious but what has the spoils of animals, or the horns or the hoofs of quadrupeds, which do not come within former descriptions; and there is hardly any one whose trade is to dress or improve furs, but knows several creatures by their skins, which have not hitherto been noticed by any naturalist; and it was only at the latter part of the seventeenth century that a tolerably accurate description of the figure and habits of the musk were given; for it seems to have been unknown to the ancients, but is mentioned in the eighth century by the Arabians. At that period, and long after, the animal was by some considered as a kind of goat, and by others, a species of deer or antelope, and of course was supposed to be a horned animal; but the general character is without horns; in the lower jaw eight cutting teeth, and six grinders in each jaw; the upper jaw much longer than the lower, on each side of which is

near two inches long, hanging down, quite exposed ; some of the tribe are destitute of the latter.

There are now several species of this animal which are new to naturalists. They are hunted for the sake of a well-known perfume, which is contained in an oval about the size of a small hen's egg, hanging from the penis, and peculiar to the male only. This receptacle is constantly filled with a soft, unctuous, brownish substance, of the most powerful and penetrating scent, and is the perfume in its natural state. When close, in large quantities, the smell is very powerful and offensive. It has been known to force the blood from the eyes, and ears, of those who have imprudently or accidentally inhaled its vapours ; but at a distance the scent is generally considered agreeable. A grain of musk is sufficient to perfume an apartment for a considerable time ; in larger quantities it continues to give out its scent many years, and seems scarcely wasted in its weight, though it has during that time filled the atmosphere to a distance with its particles. It is employed in medicine particularly in nervous and hysteric disorders ; and in these cases is found to be one of the most powerful remedies in use. The quantity produced from each animal about a quarter of an ounce, and is found at all seasons of the year ; but not in those that are young.

Many thousands of these bags are sent over annually to Europe, besides the great consumption which exists in the eastern parts of the East ; for Tavernier says, that he found in one journey 7673 musk bags. To account for this, it is supposed that the musk is frequently mixed and adulterated with the blood of the animal. The musk is principally found in the kingdom of Thibet, in the province of Mohang Meng, Tonquin, and Bontan ; and also near the lake Baikal, and near the rivers Jenisea and Yenisei ; but that of Thibet is considered the superior kind.

THE THIBET MUSK.

THE size and general appearance of this animal resembles, in some degree, those of the roebuck. It is about three feet four inches in length, and about two feet eight inches in height, from the top of the shoulders to the bottom of the fore feet; the ears are long and narrow, of a pale yellow in the inside, and deep brown outside. The general colour of the body is a deep iron gray. The female is not so large as the male, has two teats, but is destitute of tusks.

These animals are found in the Alpine mountains of Asia, Tonquin, and Siberia, and about lake Baikal. In their habits and manners they are very like the chamois and other mountain goats, leaping with great celerity, and when pursued taking refuge among the highest and most inaccessible summits. Indeed, their favourite haunts are the tops of mountains covered with pines, where they delight to wander in places the most difficult of access. The flesh of the males is much infected with the taste of musk; but it is eaten by the Russians and Tartars.

THE INDIAN MUSK

Is so called from its being a native of the East Indies. It is larger than the Thibet Musk: its head is somewhat like that of the horse; the ears oblong and erect, and legs slender, with spurious hoofs; the body is of a tawny colour above, and whitish beneath; and the tail rather long.

THE PYGMÆUS, OR GUINEA MUSK.

Is very small, as its name imports, being not more than nine or ten inches long from the nose to the tail. It is the most elegant little animal; the body is of a bright bay colour; the belly and inside of the thighs white; and the

are so slender as not to exceed the diameter of a quill; the head, eyes, and ears, are rather large; the aspect is mild. It obtained the name of Guinea Musk, from the opinion of Brisson and others, that it was a native of that country, which, it has been since ascertained, is not the case. They are found in the East Indies, and in several of the islands—in Java and Prince's Island. The natives catch great numbers of them in snares, and carry them in cages to market, where they sell them at about six pence each.

There is also a variety of this kind, with the body of a rusty brown, mixed with black, and the neck and throat marked with perpendicular stripes.

THE MEMINNA MUSK.

This species has been sometimes confounded with the African Musk, but is very dissimilar. It is of a yellowish-grey colour; the haunches and sides are spotted and marked with white, its ears are long and open, and its tail

This animal is not larger than a hare, but exactly resembles a fallow deer. They can subsist only in a warm climate, being so extremely delicate that it is with difficulty they can be brought alive into Europe, where they soon perish. In addition to their beauty, they are remarkably gentle and familiar.

THE BRAZILIAN MUSK.

These animals are about the size of a roebuck; eyes large and black; nostrils wide; the hinder legs longer than the forelegs, and the tail about six inches long; the head and neck tawny; back, sides, and thighs, of a bright rust colour; the lower part of the belly, and inside of the thighs, black. They inhabit Guiana and Brazil, are excessively tame, but remarkably active and swift. Like goats, they

can stand with all their four legs placed together on the point of a rock. The Indians hunt them, and their flesh is esteemed very delicate. They are frequently seen swimming in the rivers, and are then easily caught.

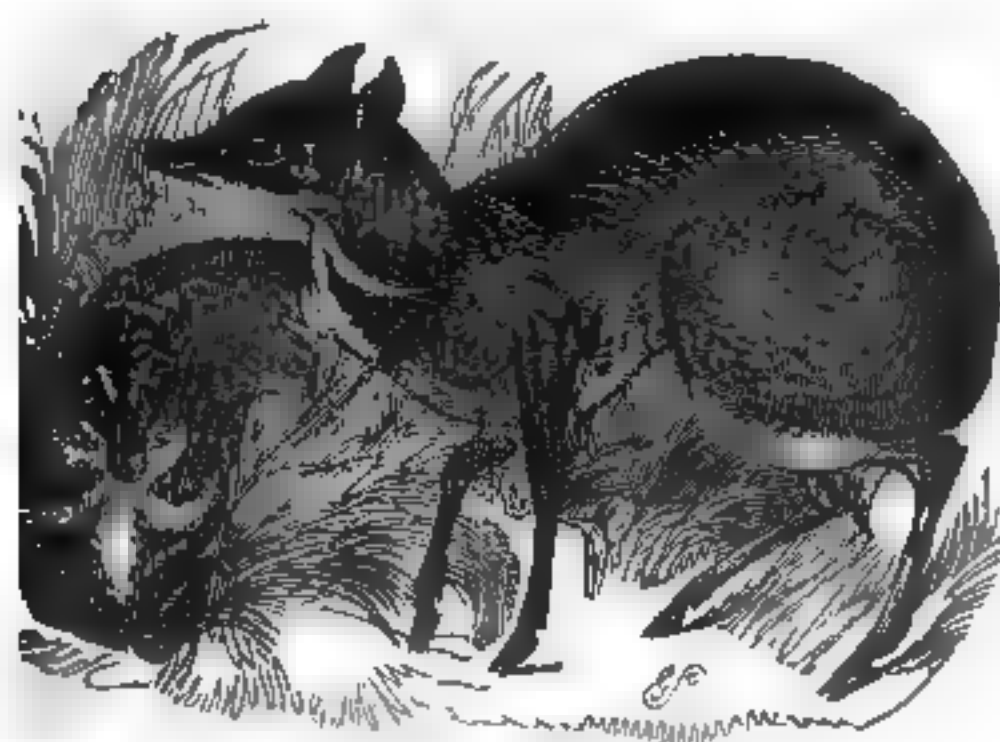
THE JAVA MUSK.

Is, as its name imports, a native of the island of Java; the body is ferruginous above, beneath white; the tail longer than the neck gray, mixed with brown hairs; beneath white, with two gray spots; the nose and ears are almost destitute of hair, and the size of the animal does not exceed that of a rabbit. In the Leverian Museum was a small species of Musk, called "the small spotted Musk." In size it scarcely exceeded the pigmy Musk; but doubts are entertained of its having attained its full growth, from the fineness and closeness of the hair. The colour was a ferruginous brown and spotted above with white. Dr. Shaw says, that the animal in question appears to be nearly allied to one represented by Pelia, who says it is a native of Surinam, and describes it as of a ferruginous colour, thickly spotted with white, except on the head, breast, and belly; and that it is in all probability the same.

THE NAPU MUSK DEER.

IN its general form this animal resembles a stag in miniature, but its face is proportionally much more elongated in front, the legs much more taper and slender, and the height of the hinder parts much greater in comparison with that of the fore quarters. The ears are not small in size, the eyes are prominent and remarkably brilliant, and the tail rather short. Its colour above is a glossy ferruginous brown, resulting from the intermixture of black and fawn-coloured hairs, somewhat lighter along the middle line of the back, and varying in intensity according to the position of the animal.

the position in which it is seen. The under parts inside of the legs are pure white, as are also the throat and chin.



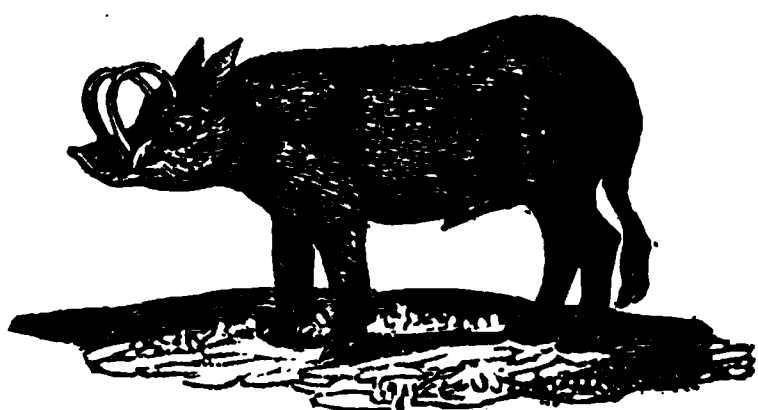
The Napu frequents thickets near the sea shore, and principally on berries. When taken young, it is killed with the greatest facility. In captivity, it appears calmly at its ease, and quite indifferent to what is passed around it. Its full dark eye, and placid air, give it the appearance of a degree of intelligence which it does not really possess, for the greater part of its existence is passed in eating, drinking, and sleeping. Its voice is scarcely more than might be produced by a deep, but gentle inspiration. It is found in the island of Java.

The preceding articles on the Antelope, are copied from Le Keux's Illustrations of Natural History, except those relating to the Indian Antelope and Napu Musk which are copied from the Zoological Gardens.

CHAP. XIX.

Of the Babiroussa, or Indian Hog...The Cabiai...The Porcupine...The Couando...The Urson...The Asiatic Hedgehog...The Camelopard...The Llama and Paco...The Vicuña...The Sloth...The Surikat...The Tarsier...The Phalange...The Coquallin...The Hamster...The Bobak...The Jerboa...The Ichneumon...The Gray Ichneumon...The Fossa...The Vansire...The Maki or Macauco...The White-headed Mongoose...The Bengal Loris...The Javelin Bat.

THE BABIROUSSA,
OR INDIAN HOG.



ALL naturalists have regarded this animal as a kind of hog, though it has neither the head, shape, bristles, nor tail of a hog. Its legs are longer and its muzzle shorter than those of a hog. It is covered with soft and short hair like wool; its tail, which tapers to a fine point, is terminated by a tuft of hair the same; its body is likewise not so thick and clumsy as that of the hog; its ears are short and pointed; its skin is black, and furrowed with wrinkles and creases; but its most remarkable character, and what distinguishes it from all other animals, are four enormous tusks, or canine teeth; the two shortest of which shoot out

er jaw, like those of the boar; the two others, come from the upper jaw, pierce the cheeks, or rather upper part of the lips, and rise crooked almost to s. These tusks are of a very beautiful ivory, much ar and finer, but not so hard as that of the elephant. e quadruple and enormous tusks give these animals formidable appearance; they are, however, less us than our wild boars. They go, like them, in they have a very strong smell, by which they are discovered, and hunted with good success. They rribly, defend themselves, and wound their enemy air under tusks; for the upper are rather of disser- an of use to them. Although wild and ferocious as r, they are tamed with much ease; but their flesh, very good food, putrefies in a very short time. As ir is fine, and their skin delicate, it is soon penetra- he teeth of the dogs, who hunt them in preference boars, and sooner accomplish their purpose. The ssa strikes its upper tusks into the branches of rest its head, or to sleep standing. This habit it ommon with the elephant, who, in order to sleep ect posture, supports his head by fixing the end usks in the holes which he makes in his lodging. Babiroussa differs still more from the wild boar by al appetites. It feeds upon grass and leaves of d does not endeavour to enter gardens, to feed on eas, and other vegetables; while the wild boar, s in the same country, feeds upon wild fruits, roots, n on the depredations it makes in gardens. These who go alike in herds, never mix: the wild boars one side, and the Babiroussas on the other: these icker, and have a very fine scent. They often fix ves against a tree, to keep off the hunters and gs. When they are pursued for a long time, they

make towards the sea, and, swimming with great dexterity, very often escape their pursuers; for they swim for a long time, and often to very great distances, and from island to another.

The Babiroussa is found not only in the island of Borneo, near Amboyna, but also in many parts of South Asia and Africa. We have not had it in our power to convince ourselves, that the female had not the two tusks which are so remarkable in the male; but most authors who have spoken of this animal, seem to agree in this circumstance*.

THE CABIAI.

THIS American animal, which is also called the Capibara, has never yet made its appearance in England. It is a hog, as naturalists and travellers pretend; it even resembles it only by trifling marks, and differs from it in striking characters. The largest Cabiai is scarcely the size of a hog of eighteen months growth. The head is longer; the eyes are larger; the snout, instead of being rounded, as in the hog, is split like that of a rabbit or hare, and furnished with thick, strong whiskers; the mouth is not so wide; the number and form of the teeth are different; for it is without tusks: like the peccary, it wags its tail, and, unlike to all others of this kind, is in a measure web-footed, and thus easily fitted for swimming and for living in water. The hoofs before are divided into four, and those behind into three; between the divisions, there is a prolongation of the skin; so that the feet, when used in swimming, can beat a great surface of water.

* Lesson, the latest naturalist who has mentioned the Babiroussa, and who examined many of them in Java, states that the female has only two tusks, and is also much smaller than the male.

imal, thus made for the water, swims there like eels the same prey, and seizes the fish with its mouth, and carries them to the edge of the lake to eat them with the greater ease. It lives also upon nuts, and sugar-canes. As its legs are broad and it sits upright upon its hind legs. Its cry resembles the braying of an ass than the grunting of a pig. Its colour is a deep reddish brown above, and fawn below. It seldom stirs out but at night, and almost always in company, without going far from the sides of the lake in which it preys. It can find no safety in flight; in order to escape the enemies which pursue it, it plunges into the water, remains at the bottom a long time, at such a distance, that the hunters lose all hopes of catching it again. It is fat; and the flesh is tender, but, like that of the otter, rather of a fishy taste; the head, however, is not bad; and this agrees with what is said of the fish, whose exterior parts have a taste like fish. The cabiai is quiet and gentle: it is neither quarrelsome nor ferocious with other animals. It is easily tamed, and will follow the hand that feeds it. We do not know the time of their bringing forth their young, nor their growth, and consequently the length of life of the animal. They are very common in Guiana, as well as in Brazil, in Amazonia, and in all the lower countries of South America.

THE PORCUPINE.

The name of this animal leads us into an error, and induces us to imagine, that it is only a hog covered with quills; in fact, it only resembles that animal by its name.

In every other respect it differs from the hog, and from any other animal, as well in outward appearance as in the interior conformation. Instead of a long

head and ears, armed with tusks, and terminated with snout ; instead of a cloven foot, furnished with hoofs, like the hog, the Porcupine has a short head, like that of the



beaver, with two large incisive teeth in the fore part of each jaw ; no tusks, or canine teeth : the muzzle is divided like that of the hare ; the ears are round and flat, and the feet armed with nails ; instead of a large stomach and an appendage in form of a caul, the Porcupine has only a single stomach, with the large cæcum gut ; the parts of generation are not apparent externally, as in the hog ; its testes, and the other parts of generation, are likewise concealed in the body. By all these marks, as well as by its short tail, its long whiskers, and its divided tail, it partakes more of the hare, or beaver kind, than the hog. The hedgehog, indeed, who is, like the Porcupine, covered with prickles, is somewhat resembling the hog ; for it has a long muzzle, terminated by a li

l these resemblances being very distant, it
 ie Porcupine is a peculiar and different spe-
 t of the hedgehog, the beaver, the hare, or
 imal with which it may be compared.

ally about two feet in length, from the head
 nity of the tail. The body is covered with
 ten to fourteen inches long, resembling the
 oose-quill in thickness, but tapering at both
 iegated with black and white rings. In their
 hey incline backward, like the bristles of a
 en the animal is irritated, they rise and stand

s and naturalists have almost unanimously de-
 this animal has the faculty of discharging its
 ounding its foes at an immense distance ; that
 have the extraordinary and particular prop-
 trating farther into the flesh, of their own ac-
 on as ever the point has made an entrance
 skin. These stories, however, are all purely
 nd without the smallest foundation or reason.
 eems to have arisen either from this animal
 rickles upright, when he is irritated ; and, as
 me of them which are only inserted into the
 mall pellicle, they easily fall off ; or from his
 shaking off his quills to a considerable distance
 shedding them. We have seen many Porcu-
 ave never observed them dart any of their
 them, although they were violently agitated.
 , then, avoid being greatly astonished, that the
 thors, both modern and ancient, as well as the
 le travellers, have joined in believing a cir-
 so entirely false. In justice, however, to Dr.
 nust except him from the number of these cred-
 llers : " Of all the number of Porcupines," says

he, "which I have seen in Africa, I have never yet with one which darts its quills, however strongly it is irritated. Their common method of defence is to rise suddenly, and when the enemy approaches very near, rise suddenly, and wound him with the points of the quills. It appears, however, that there is a pernicious quality in the quills; which renders it difficult to cure the wounds inflicted by them.

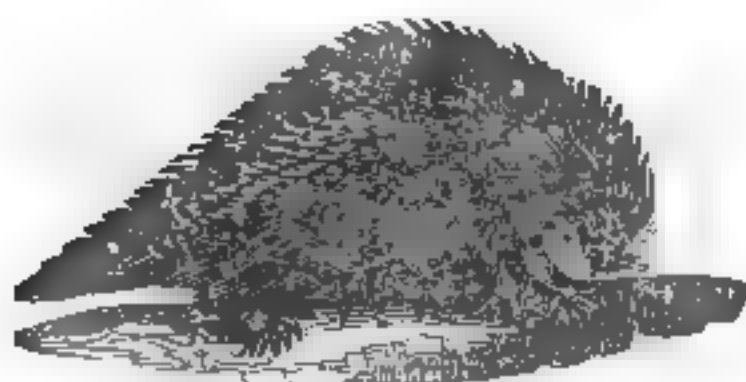
The Porcupine, although a native of the hottest climates of Africa and India, lives and multiplies in colder countries such as Persia, Spain, and Italy. Agricola says, that species were not transported into Europe before the 16th century. They are found in Spain, but more common in Italy, especially on the Apennine mountains, and environs of Rome.

In its wild state, the Porcupine is a perfectly shy and defensive animal. It never attacks, and will elude an assessor when it can; but if compelled to defend itself, it forces even the lion to retire. In its domestic state, it is neither furious nor vicious; it is only anxious for security; and, with the assistance of its fore teeth, which are sharp and strong, like those of the beaver, it easily gnaws through a wooden prison. It is also known, that it is willingly on fruits, chestnuts, and crumbs of bread. In its wild state, it lives upon roots and wild grain; when it can enter a garden, it makes great havoc, eating the herbs, roots, fruit, &c. It becomes fat, like many other animals, towards the end of summer; and its flesh, although insipid, is tolerable eating.

When the form, substance, and organization of the prickles of the Porcupine are considered, they are to be true quills, to which only feathers are wanted to make them exactly resemble those of birds. They move together with a noise as the animal walks; and it

hem in the same manner as the peacock spreads hers of its tail. The Indians use them to adorn ticles of dress and furniture, and dye them of various colours.

**THE COUANDO,
OR BRAZILIAN PORCUPINE.**



rcupine, as has been observed, is a native of the ntries of the Old World ; but, not having been the New, travellers have not hesitated to give to animals which seemed to resemble it, and par- to that of which we are about to take notice. On r hand, the Couando of America has been trans- o the East Indies ; and Pison, who probably was ainted with the porcupine, has engraved in Bontius ando of America, under the name and description ue porcupine. The Couando, however, is not a e, it being much less ; its head and muzzle is ; it has no tuft on its head, nor slit in the upper lip ; are somewhat shorter, and much finer ; its tail is d that of the porcupine is very short ; it is carniv- rather than frugivorous, and endeavours to surprise all animals, and poultry, while the porcupine only on herbs, greens, fruits, &c. It sleeps all the day, e hedgehog, and only stirs out in the night ; it p trees, and hangs in the branches by its tail,

which the porcupine cannot do. All travellers agree that its flesh is very good eating. It is easily tamed, and commonly lives in high places. These animals are found over all America, from Brazil and Guiana to Louisiana and the southern parts of Canada: while the porcupine is only to be found in the hottest parts of the Old Continent.

In transferring the name of porcupine to the Couandou they have supposed and transmitted to him the same faculties, especially that of lancing his quills. Ray is the only person who has denied these circumstances, although they evidently appear at first view to be absurd.

THE URSON, OR CANADA PORCUPINE

THIS animal, placed by nature in the desert part of North America, to the east of Hudson's Bay, exists independent of, and far distant from, man. The Urson might be called the *Spiny Beaver*, it being of the same size, the same country, and the same form of body; it has, like that, two long, strong, and sharp incisive teeth at the end of each jaw; its prickles are short, and almost covered with hair; for the Urson, like the beaver, has a double coat; the first consists of long and soft hair, and the second, of a down, or felt, which is still softer or smoother. In the young Ursons the prickles are proportionably larger, more apparent, and the hair shorter and scarcer than in the adults.

This animal dislikes water, and is fearful of wetting himself. He makes his habitation under the roots of hollow trees, sleeps very much, and chiefly feeds upon the bark of juniper. In winter, the snow serves him for drink; in summer, he laps water like a dog. The savages eat his flesh, and strip the bristles off the hide, which they make use of instead of pins and needles. Many of the trading Americans also depend upon them for food at certain seasons of the year.

ring observations are from Dr. Godman.

remote and unsettled parts of Pennsylvania the still occasionally found, but south of this state unknown. According to Catesby, it never was in direction beyond Virginia, where it was quite common in the Hudson's Bay country, Canada, and New England, as well as in some parts of the western states, throughout the country lying between the Rocky Mountains and the great western rivers, they are found in abundance, and are highly prized by the aborigines, for the sake of their flesh and their quills, which are commonly employed as ornaments to their dresses, pipes,

and the skill and ingenuity displayed by the Indian in ornamenting dresses, buffalo robes, moccasins, &c. can only be appreciated by those who have never seen the articles thus adorned. We have already mentioned that these quills rarely exceed two inches and at most three inches in length, and are not much thicker than a moderate sized wheat straw. They are used on large surfaces worked or embroidered in the most beautiful manner with these quills, which give them various rich and permanent colours. In making the embroidery they have not the advantage of a needle and a straight awl. Some of their work is done by passing the sinew of a deer or other animal through a hole made with the awl, and at every stitch wrapping this with one or more turns of a porcupine-quill. When the quill near to its end, the extremity is turned round, or is concealed by the succeeding turn so as to be hidden when the whole is completed, as if but a single needle were used. In other instances the ornament is made of the porcupine-quills exclusively, and is frequently very beautiful, from its neatness and the

good taste of the figures into which it is arranged general, however, the strong contrast of colours : most remarkable effect aimed at. On some of the a of dress figures of animals, exhibiting much ingenuit formed by embroidering with these quills. The Phi phia Museum, so rich in objects of natural history boasts a most splendid and valuable collection of ar of dress, and implements of peace and war, peculiar t various aboriginals of our country. Whoever wish see to what extent the quills of the porcupine are emp by these interesting people, and also to form a better of the number of porcupines that must be found i trans-Mississippian regions, may be fully gratified by ing this great institution."

THE TANREC, AND TENDRAC, OR ASIATIC HEDGEHOGS,

ARE two small animals of the East Indies, and Mada car, which a little resemble the European hedgehog, are sufficiently different to constitute a different spe What strongly proves this is, their not rolling themse up in the shape of a ball, like the hedgehog ; and w the Tanrecs are found, as at Madagascar, hedgehogs also found of the same species as ours.

There appear to be Tanrecs of the two species, or haps of two different breeds. The first, which is m as large as our hedgehog, has its muzzle proportion longer ; and its ears are more apparent, and less furni with prickles, than those of the second, to which we given the name of Tendrac, to distinguish it from the The Tendrac is not larger than a rat ; its muzzle an ears are shorter than those of the Tanrec ; which is covered with shorter prickles, as numerous as those of hedgehog ; whereas the Tendrac has them only on

, neck, and shoulders, the rest of the body being covered with a coarse hair resembling the bristles of a hog. These little animals, whose legs are small, move but slowly; they grunt like a hog, and wallow, like it, in mire; they are chiefly in creeks and harbours of salt water; they multiply in great numbers, and make themselves holes in the ground, and sleep for several months. During this dormant state, their hair falls off, which is renewed upon revival. They are usually very fat; and although their flesh be insipid, soft, and spongy, yet the Indians find their taste, and consider it as a very great delicacy.

THE CAMELOPARD, OR GIRAFFE,

one of the tallest, most beautiful, and most harmless animals in nature. The enormous disproportion of its legs (the fore legs being as long again as the hinder ones)* is a great obstacle to the use of its strength; its motion is limping and stiff; it can neither fly from its enemies in the free state, nor serve its master in a domestic one. This species is not very numerous, and has always been confined to the deserts of Ethiopia, and some other provinces of Africa and India. As these countries were unknown to the Greeks, Aristotle makes no mention of this animal; but Pliny speaks of it, and Oppian describes it in a manner that is far from equivocal. "The Camelopard," says this author, "has some resemblance to the camel; its head and ears are small, its feet broad, and its legs long; the height of the last is very unequal, the fore legs being much longer than the hinder, which are very short; that, when the animal appears standing and at rest, it

This is erroneous, as will be seen from Le Vaillant's description, which we have added to this article.

has somewhat the appearance of a dog sitting. Then two prominences upon the head, just between the eyes, they resemble two small and straight horns. Its nose is like the stag's; its teeth small and white; its eyes fire; its tail short, and furnished with black hair to the end."



"There is," says Strabo, "a large beast in Ethiopia called *Camelopardalis*; although it bears no resemblance to the panther, for its skin is not spotted in the same manner: the spots of the panther are orbicular, and those of this animal are long, and nearly resembling those of the doe or young stag." Gillius' description seems still more accurate. "I have seen," says he, "three Camelopards at Rome. On their heads are two horns, six inches long; and in the middle of their forehead, a tubercle rises to the height of two inches, which appears like a third horn. The animal is sixteen feet high when he holds his head erect. Its neck alone is seven feet; and its tail twenty feet

the tip of the nose to the end of the tail. Its fore and legs are nearly of an equal height ; but the thighs are so long in comparison to those behind, that its back seems to slope like the roof of a house. Its whole body is sprinkled with large brown spots, which are nearly the same form. Its feet are cloven like those of the

inspecting the accounts travellers have given of the Camelopard, I find a tolerable agreement between

They all agree, that it can reach with its head to eight or sixteen or seventeen feet, when standing ; and that the fore legs are as high again as the hinder ones ; so that it seems as if it were seated upon its haunches. They all likewise agree, that it cannot run very fast on account of this disproportion ; that it is very gentle and that by this quality, and even by the shape of the head, it partakes more of the shape and nature of the camel than of any other animal ; that it is among the number of ruminating animals, and, like them, is deficient of the incisor-teeth in its upper jaw. By the testimonies of some, we find that the Camelopard is to be met with in the northern parts of Africa, as well as in those of Asia. *

It is very clear, from what we have mentioned, that the Camelopard is a very different species from every other animal ; but if we referred it to any, it would be the camel rather than the stag.

We are ignorant of the substance of the horns of the Camelopard ; and in that part it may resemble the stag rather than the ox, though possibly they may be neither solid, like those of the first, nor hollow, like those of the goat, &c. Who knows but they may be composed of matted hairs, or of a substance and texture entirely pecu-

* We believe that the Giraffe is not found except in Africa.

liar to themselves? The horns of the Camelopard are surrounded with large, coarse hair, and not covered with down or velvet, like those of the stag. The tubercle in the middle of the head seems to form a third horn: the two others, which are not pointed, but have mossy knobs at their ends, are perhaps only tubercles somewhat resembling the former. Travellers inform us, that the female Camelopards have horns like the males, with this difference only, that they are smaller. If this animal, therefore, was really of the stag kind, the analogy would be violated here likewise; for, of all such animals, there is only the female rein-deer that has horns.

Since the period when Buffon wrote, the Giraffe has become much better known. Several have been carried to Europe. One was sent as a present to the king of England by the Pacha of Egypt, and arrived there in 1827. It died recently. There is still one existing in the Jardin des Plantes, at Paris. M. le Vaillant, the first naturalist who had an opportunity of closely examining the Giraffe, gives a full and accurate description of it in his Travels. "The Giraffe chews the cud, as all horned animals with cloven feet do. Like them, too, it crops the grass; though seldom, because pasture is scarce in the country which it inhabits. Its ordinary food is the leaf of a sort of mimosa, called by the natives *kameap*, and by the planters *kamel doorn*. The tree being peculiar to the canton, and growing only there, this may be the reason why it takes up its abode in it, and why it is not seen in those regions of the south of Africa where the tree does not grow. This, however, is but a vague conjecture, and which the reports of the ancients seem to contradict.

"Its head is unquestionably the most beautiful part of its body. Its mouth is small; its eyes large and animated. Between the eyes, and above the nose, it has a very dis-

prominent tubercle. This is not a fleshy excrescence, but an enlargement of the bony part, the same as the little bosses, or protuberances, with which it is armed, and which rise as large as a hen's egg, on each side of the mane, at its commencement. Its surface is rough and terminates in a point. Each jaw has teeth on each side, but the lower jaw only has eight teeth in front, while the upper jaw has none.

The hoof is cloven, has no heel, and much resembles that of the ox. It may be observed, however, at the first sight, that the hoof of the fore foot is larger than that of the hind foot. The leg is very slender; but the knee is like that of a stumbling horse, because the animal is seldom down to sleep. It has also a large callosity in the middle of the sternum, owing to its usually reposing on it. Had I ever and never killed a Giraffe, I should have thought, like many other naturalists, that its hind legs were much longer than the fore ones. This is a mistake: they bear the same proportion to each other as is usual in quadrupeds. There are also the same variations, even in animals of the same species. We know, for instance, that mares are lower before the hind legs than the mares. What deceives us in the Giraffe, and occasions this apparent difference between the legs, is the height of the withers, which may exceed that of the rump sixteen to twenty inches, according to the age of the animal; and which, when it is seen at a distance in the open country, gives the appearance of much greater length to the hind legs.

Giraffe stand still, and you view it in the front, it appears very different. As the fore part of its body is much larger than the hind part, it completely conceals the hind legs; so that the animal resembles the standing trunk of a tree.

"Its gait, when it walks, is neither awkward nor displeasing; but it is ridiculous enough when it trots; for you would then take it for a limping beast, seeing its head perched at the extremity of a long neck which never bends swaying backwards and forwards, the neck and head playing in one piece between the shoulders as on an axis. However, as the length of the neck exceeds that of the legs at least four inches, it is evident that, the length of the head too taken into the account, it can feed without difficulty, and of course is not obliged either to kneel down or to straddle with his feet, as some authors have asserted.*

"Its mode of defence, like that of the horse and other solidungulous animals, consists in kicking with the heels. But its hind parts are so light, and its jerks so rapid, that the eye cannot follow them. They are even sufficient to defend it against the lion, though they are unable to protect it from the impetuous attack of the tiger.

"Its horns are never employed in fight. I did not perceive it use them against my dogs; and these weak and useless weapons would seem but an error of Nature, if Nature could ever commit error, or fail in her designs.

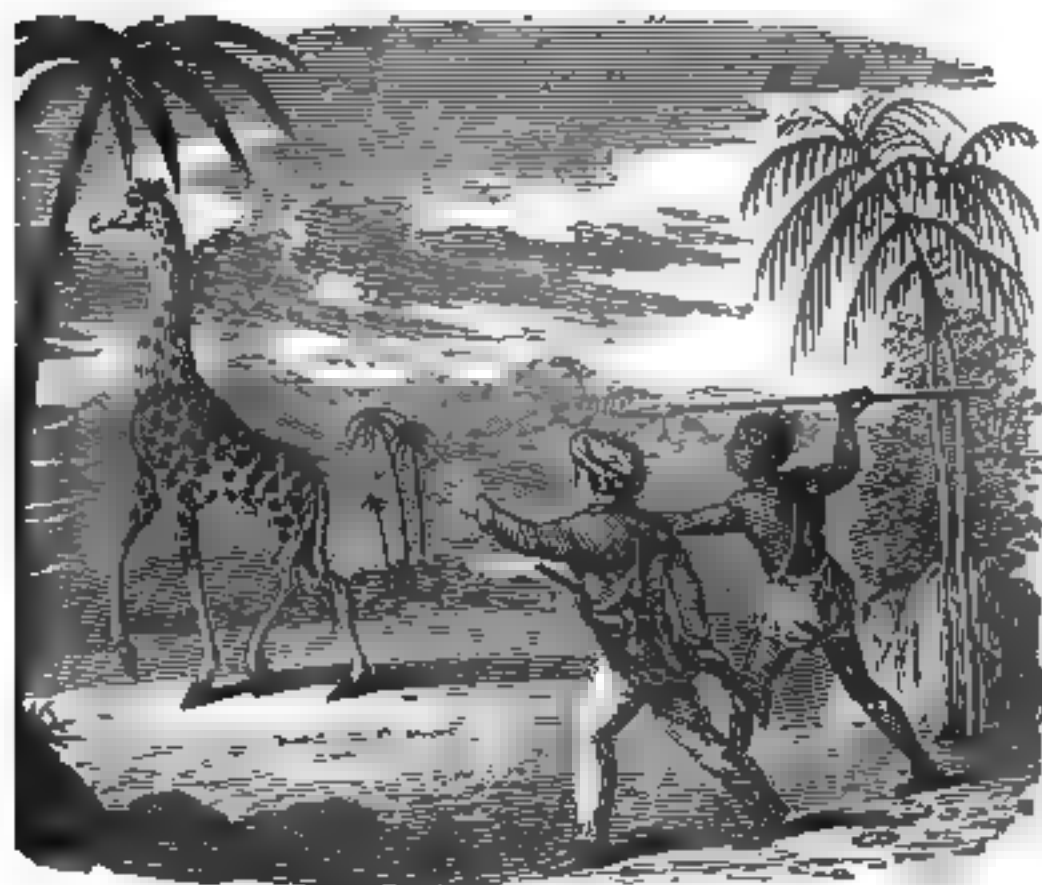
"In their youth, the male and female Giraffes resemble each other in their exterior. A knot of long hair then terminates their obtuse horns; this peculiarity the female preserves for some time, but at the age of three years the male loses it. At first, the hide is of a light red, but it deepens in colour as the animal advances in age, and at length, it is of a yellow brown in the female, and of a brown bordering on black in the male. The male may,

* It is, besides, unnecessary for the animal to kneel, as it feeds principally on the boughs of a species of acacia, which it draws down to its mouth with its long and flexible tongue.

at a distance, be distinguished from the female by difference of colour. As to the arrangement and form of spots, the skin varies in both sexes. The female does not stand so high as the male, and the frontal prominence is less marked. She has four teats; and, according to the account given by the natives, she has one young at a birth, with which she goes twelve months."

The following extract is from Major Denham.

On the 11th we arrived at Showy, after a very tedious march, and losing our way for three hours: the woods were indeed, most intricate and difficult; and as all the caravans had moved up towards Barca Gana, we could find no guides. We saw five *Giraffes* (Camelopards) to-day, to my great delight; they were the first I had seen in the country, and notwithstanding my fatigue and the heat, Bellal



myself chased them for half an hour: we kept within about twenty yards of them. They have a very extraordinary appearance from their being so low behind, and

move awkwardly, dragging, as it were, their hinder legs after them: they are not swift, and are unlike any figure of them I ever met with."

The Library of Entertaining Knowledge furnishes us with the following extracts:—

"Mr. Richard Davis, (animal painter to the king,) who executed several portraits of the Giraffe for his majesty, communicated some interesting particulars regarding the animal to the Literary Gazette. We transcribe them, as they are the results of accurate observation, for which Mr. Davis had ample opportunity, during the time he was employed in painting the portraits to which we have alluded:—

"In its natural habits I cannot conclude that the Giraffe is a timid animal, for, when led out by its keepers, the objects which caught its attention did not create the least alarm, but it evinced an ardent desire to approach whatever it saw: no animal was bold enough to stand and offer the Giraffe to come near it. Its docile, gentle disposition leads it to be friendly and even playful with such as are confined with it; a noise will rouse its attention, but not excite fear.

"I doubt whether the Giraffe does amble, as asserted by Mr. Geoffroy St. Hilaire. Its walk is fast, from the length of limbs, but extremely awkward; its gallop is a succession of jumps, and I see no reason why this pace should not continue long, if we judge by analogy with the form of some horses and dogs that have narrow stomachs; there may be a sufficient space for the play of lungs in depth, if not in breadth. When I say the walk is awkward, perhaps this specimen is hardly a fair one from which to form such an opinion generally; for its growth has been very rapid, and its limbs are deformed by the treatment it experienced when in the hands of the Arabs.

urney from Senaar to Cairo. It was oc-
ed on the back of a camel; and when
ogether for that purpose, they were not
ice of cords, nor the mode of applying
e marks of what it must have suffered in

s of the head and neck are extremely
ious, possessing the flexibility and ~~use-~~
eck of the swan and peacock. . . . Its
minent, and exceedingly quick in catching
at distance; it is well defended by the
see, without turning the head, behind
The ears are well formed to receive
e constantly bent forward. The tongue
properties, and can be so tapered as to
a very small key. Its taste and smell are
elicate, especially as regards the artificial
t: it can raise the little papillæ at plea-
the tongue is perfectly smooth and soft,
lingly rough. It is a small feeder, but
it or ten quarts of milk in the day. The
er than the lower one, which assists the
g in boughs; but when grinding its food
It has no teeth of nippers in the upper
outside ones are divided to the socket;
n it chews the cud.

ak it very choice of its food when out, so
and sweet. It is fond of aromatics; the
gh it also eats; our acacia, and others of
, it does not prefer; and it never attempt-
seemed a painful and unnatural action
ured to reach the ground. I have seen it
n excited by an object which curiosity led
ts feet were then two yards apart. It

was constantly in motion when the doors of its hovel were open ; but it has no sense of stepping over any obstruction however low.

“ It is asserted by travellers that it resembles the camel in having callosities on the breast and thighs ; and that it lies on its belly like that animal. There are between the fore-legs what, to the casual observer, may appear to be such ; but these are folds of loose skin, which enable it to separate its fore-legs when reaching downwards. Its mode of resting is, like most quadrupeds, on its side ; but the operation of lying down is curious and peculiar : I will endeavour to describe it.

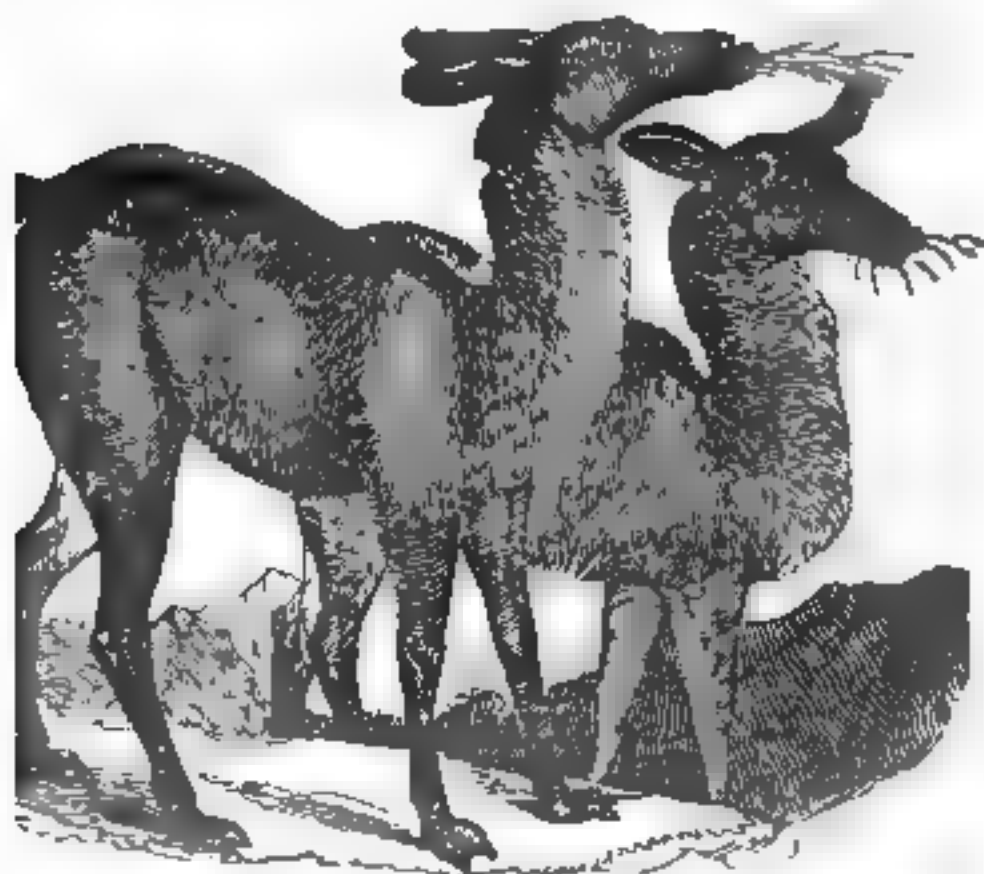
“ We will suppose it to be preparing to lie on the off-side : the first action is, to drop on the fetlock of the off fore-leg, then on the knee of the near one, to bring down the other knee : it then collects its hind legs to perform the next movement, the near one being brought rather forward but wide, until the off hind-leg is advanced between the fore ones ; this requires some time to accomplish, during which it is poised with the weight of its head and neck, until it feels that its legs are quite clear and well arranged : it then throws itself on its side, and is at ease. When it sleeps, it bends the neck back, and rests the head on the hind quarter.’

“ In one point all the observers of the European Giraffes agree—that they never make any noise whatever. Further, they appear to consider that the animal would be useless to man in a state of domestication. M. Acerbi has an anecdote illustrative of this point:—

“ When at Alexandria, I had one day ordered the two Giraffes (a male and female) taken at Darfûr to be led up and down the square in front of my house : among the crowd collected on the occasion were some Bedouins of the Desert. On inquiring of one of them whether he had

on similar animals before—he replied that he had. I then asked him in Arabic, ‘Taib di? Do they ou?’ To which he rejoined, ‘Mustaib,’ or, ‘I do them.’ Having desired my interpreter to inquire of his disapproval, he answered, ‘that it did y like a horse, it did not serve for field labours like id not yield hair like a camel, nor flesh and milk at; and on this account it was not to his liking.’”

THE LLAMA, GUANACO, PACO, VICUNA.



very singular that, although the Llama and the Paco are domesticated in Peru, Mexico, and Chili, as the horse, the ox, the sheep, or the camel in Arabia, we scarcely know much of them. Peru, according to Gregory de Bolívar, is the true and native country of the Llamas; they have been introduced into other provinces, as New Spain, &c. They are kept rather for curiosity than utility; but in Peru, from Lima to Caracas, these animals are in great num-

bers, and make the chief riches of the Indians and Spaniards, who rear them. Their flesh is excellent food; their hair, or rather wool, may be spun into beautiful clothing; and they are capable of carrying heavy loads in the most rugged and dangerous ways; the strongest of them will travel with two hundred or two hundred and fifty pounds weight on their backs: their pace is but slow, and their journey is seldom above fifteen miles a day; but then they are sure, and descend precipices, and find footing among the most craggy rocks, where even men can scarcely accompany them; they commonly travel for five days together, when they are obliged to rest, which they do, of their own accord, for two or three days. They are chiefly employed in carrying the riches of the mines of Potosi. Bolivar affirms that, in his time, above three hundred thousand of these animals were in actual employ.

The growth of the Llama is very quick; and its life is but of short duration. This animal couples so early as at three years of age, and remains strong and vigorous till twelve; after which it begins to decline, and becomes entirely useless at fifteen. Their nature appears modelled on that of the Americans. They are gentle and phlegmatic, and do every thing with the greatest leisure and caution. When they stop on their journeys, they bend their knees very cautiously, in order to lower their bodies without disordering their load. As soon as they hear their driver whistle, they rise up again with the same precaution, and proceed on their journey; they feed, as they go along, on the grass they meet with in their way, but never eat in the night, making use of that time to ruminate. The Llama sleeps, like the camel, with its feet folded under its belly, and ruminates in that posture. When overloaded or fatigued, it falls on its belly, and will not rise, though its driver strikes it with his utmost force.

The Llama is about four feet high; its body, except

the neck and head, is five or six feet long; its height is near three feet. The head is small and rounded, the eyes large, the nose somewhat long, thick, the upper divided, and the lower a little hooked: it wants the incisive and canine teeth in the upper jaw.

The ears are four inches long, and move with great facility. The tail is seldom above eight inches long, and a little turned up at the end. It is covered with hair, like the ox; but the hoof has a kind of appendage behind, which assists the animal to support itself over precipices and rugged ways. The body is clothed with a short wool, as is the crupper, but it is very long on the belly and sides. These vary in colour; some are white, others black, but



are sometimes brown. The engraving is drawn from a specimen in the Zoological Gardens.

These useful, and even necessary animals are attended with no expense to their masters ; for, as they are cloven-footed, they do not require to be shod, nor do they require to be housed, as their wool supplies them with a warm covering. Satisfied with a small portion of vegetables and grass, they want neither corn nor hay to subsist them; they are still more moderate in what they drink, as their mouths are continually moistened with saliva, which they have in a greater quantity than any other animal. The natives hunt the *Guanaco*, which is the Llama in a wild state, for the sake of its fleece. The dogs have much trouble to follow them ; and, if they do not come up with them before they gain the rocks, both the hunters and dogs are obliged to desist in their pursuit.

The Pacos are a subordinate kind to the Llamas, much in the same proportion as the ass is to the horse ; they are smaller, and not so serviceable ; but their fleece is more useful: their wool is fine and long, and is a sort of merchandise, as valuable as silk. The natural colour of the Pacos is that of a dried rose-leaf, which is so fixed that it undergoes no alteration under the hands of the manufacturers. They not only make good gloves and stockings of this wool, but also form it into quilts and carpets, which bring a higher price, and exceed those of the Levant.

The Pacos also resemble the Llamas in their form, excepting that their legs are shorter, and their muzzle thicker and closer. They inhabit and climb over the highest parts of the mountains. The snow and ice seem rather agreeable than inconvenient to them. When wild, they keep together in flocks, and run very swift ; and, as soon as they perceive a stranger, they take flight, driving their young before them. The ancient monarchs of Peru rigorously prohibited the hunting of them, as they multiply but slowly ; but, since the arrival of the Spaniards in them

their number is greatly decreased, so that at present there are very few remaining. The flesh of these animals is so good as that of the Guanacos; and they are only killed after for their fleece, and the bezoar they produce. The method of taking them proves their extreme timidity, and their weakness. The hunters having driven the animals into a narrow passage, across which they have stretched a rope about four feet from the ground, with a series of pieces of linen or cloth hanging on it, the animals are so intimidated at these rags agitated by the wind, that they stop, and, crowding together in a heap, the hunters kill great numbers of them with the greatest ease; and if there are any Guanacos among the flock, which are more timid than the Pacos, they leap over the rope with great agility. The example is immediately followed by the whole flock, and they escape the stratagem of their pursuers.

With respect to the domestic Pacos, they are used to carry burdens, like the Llamas; but, being smaller and weaker, they carry much less weight. They are likewise of a more stubborn nature; and, when once they rest under their load, they will suffer themselves to be cut to pieces sooner than rise. The Indians have never made use of the milk of these animals, as they have scarcely enough to supply their own young. The great profit derived from their wool has induced the Spaniards to endeavour to naturalize them in Europe: they have transported them into Spain, in hopes to raise the breed in that country; but, the climate not agreeing with their nature, none of them lived. We are, nevertheless, persuaded that these animals, which are more valuable than the Llamas, might thrive upon the European mountains, especially upon the Pyrenean. Those who brought them into Europe did not consider that they can exist, even in Peru,

only in the cold regions ; that is, on the top of the highest mountains ; that they are never to be found in the valleys, and die if brought into hot countries ; that consequently, in order to preserve them, they should be landed, not in Spain, but in Scotland, and even in Norway, and with greater certainty at the foot of the Pyrenean, Alpine, or other mountains, where they might climb and attain to the region that most agrees with their nature.

The Llama is in general a timid and docile animal. If teased or ill treated, however, they become spiteful. Their mode of manifesting their anger is singular ; it consists in darting their saliva in considerable quantity upon the person who offends them. They will cover with it a surface of three or four yards in extent. In the wood cut at the head of this article, one of the animals is represented in the act of thus showing his displeasure. It has been asserted that the saliva is venomous, but this is an error.



The Vicuna, the wool of which is valuable, is smaller than the Llama ; its limbs are more neatly formed, and it

no protuberance on the breast. It is of a reddish n on the upper part of the body, and whitish on the r.

The Llamas (says the author of *The Menageries*) form secondary group of camels, offering to the eye of the naturalist very small anatomical differences of construction that of the camel, properly so called. The foot of Llama is not, like that of the camel, covered with an ic sole, which joins the two toes. From the absence is entire sole, the species of South America is enabled to climb the precipices of the Andes, which are its e region, the toes having strong nails, each of which a thick cushion, or pad, below. The Llama also wants second canine tooth in the lower jaw ; but this difference is not, by some, considered such as to require a separation of the genus—for deer, of various species, have the deviation from the general type. Again, the absence e hump in the Llama species is not an anatomical difference which constitutes a character ; for, as the skeleton of the Bactrian camel with two humps does not differ that of the Arabian with one, so does the bones of arrangement of the Llama agree precisely with the formation of the camel. The zebu is an ox, although as a hump. The ears of the Llama are longer, and tail is shorter, than those of the camel. The similarities which determine the genus to which the camels and the llamas belong are principally these :—1. Each species has remarkable peculiarities connected with the economy of reproduction, in which they differ from all other animals. 2. The camel and the Llama differ also from every species of the class of ruminating animals, in the want of horns, and in having two large incisive teeth on each side of upper jaw. 3. The stomachs of the camel and the llama are, in some degree, similarly constructed. Father

Feuillée has described the stomach of the Llama, and maintains that it has not only a large reservoir for holding water, but that, like the stomach of the camel, it contains the same machinery for allowing the separation of solid from liquid aliment. Sir Everard Home, however, describes this portion of the Llama's stomach as only resembling that of the camel. He says, 'the stomach is a portion of it, as it were, intended to resemble the cells for water in the camel; but these have not only superficial cells, and have no muscular walls to close their mouths; and allow the solid food to pass into the fourth cavity, or truly digesting stomach, and not into these cells.' But that the Llama has a mechanism for retaining water, or secreting a substance, is certain; for, on the summits of the Andes are far above any lakes; and it has been observed that, in a state of domestication, they never exhibit thirst, and drink whilst they can obtain green pasture. The Llama, according to Molina (*Storia Nat. del Chili*), has a formation resembling the camel's hump, being composed of an excess of nutritive matter, which lies covered by a bed of fat under the skin, and is absorbed as a reserve for an occasional want of food. These similarities certainly warrant naturalists in classing the camel and the Llama in the same genus, although they differ both in size and form. They are each created by nature for the endurance of great hardships—the one amidst the sands of the desert under a burning sun—the other on the wastes of some of the highest mountains of the world, with a region of perpetual snow above them. The slight variations in their organization, such as that of the foot, are modifications which fit them for their respective localities. A Llama among the rocks would be mechanically impeded.

nel; whilst the burning plains would be as little to the Llama. But each is adapted to exist in a cold and sterile region; and their habits are created by their peculiar organization."

THE UNAU AND THE AI, OR SLOTH.



Two animals have the epithet of *Sloth* given to them by most authors, on account of their slowness, and the difficulty with which they walk. The Unau, or two-toed sloth, has no tail, and only two nails on the fore feet. The Ai, or three-toed sloth, has a short tail, and three nails on every foot. The nose of the Unau is likewise much larger, the forehead higher, and the ears longer than those of the Ai. It differs also in the hair. As for its interior, the organs are both formed and situated differently; but the most distinctive, and, at the same time, the most singular character, is, that the Unau has forty-six ribs while the Ai has but twenty-eight. This alone supposes two quite distinct one from the other; and these forty-six, in an animal whose body is so short, is a kind of error or error in nature; for, even in the largest animals, those whose bodies are relatively longer than they are, not one of them is found to have so many. The elephant has only forty, the dog twenty-six, and the human twenty-four, &c. This difference in the construction of the Unau and the Ai supposes a greater distance between these two kinds than there is between that of the elephant and the dog, which have the same number of ribs; for

the external differences are nothing in comparison with the internal ones, which are the causes of the others. These animals have neither incisive nor canine teeth; their eyes are dull and heavy; their mouths wide and thick; their fur coarse and staring, and like dried grass; their thighs seem almost disjointed from the haunch; their legs very short, and badly shaped; they have no soles to the feet, nor toes separately moveable, but only two or three claws excessively long and crooked downwards and backwards. Unfurnished with teeth, they cannot seize any prey, nor feed upon flesh, nor even upon vegetable food. Reduced to live on leaves and wild fruits, they take up a long time in crawling to a tree, and are still longer in climbing up to the branches. During this slow and painful labour, which sometimes lasts many days, they are obliged to support the most pressing hunger; and when at length, one of them has accomplished its end, it fastens itself to the tree, crawls from branch to branch, and, by degrees, strips the whole tree of its foliage. In this manner it remains several weeks, without moistening its dry food with any liquid; and when it has consumed the store, and the tree is entirely naked, yet unable to descend, it continues on it till hunger presses, and that becoming more powerful than the fear of danger or death it drops, like a shapeless, heavy mass, to the ground, without being capable of exerting any effort to break the violence of its fall.

On the ground, these animals are exposed to all their enemies; and, as their flesh is not absolutely bad, they are killed by men and beasts of prey. They seem to multiply but little; or, if they produce very often, it is only a small number, as they are furnished but with two teats. Every thing concurs, therefore, to their destruction, and the species supports itself with great difficulty. It is true that,

gh they are slow, heavy, and almost incapable of
 1, yet they are hardy, strong, and can abstain a long
 from food: covered also with a thick and coarse fur,
 able scarcely to move, they waste but little, and
 by rest, however poor and dry their food is. Al-
 a they have neither horns on their heads, nor hoofs
 r feet, nor incisive teeth in the lower jaw, they are,
 hstanding, among the number of ruminating ani-
 and have, like them, four stomachs; so that they,
 quently, can compensate for the quality of their food
 quantity they take at a time; and what is still more
 ar is, that, instead of having, like other ruminating
 ls, very long intestines, theirs are very short, like
 of the carnivorous kind.

r these animals belong to the southern parts of the
 Continent, and are never to be met with in the Old.
 Inau, as well as the Ai, is to be met with in the des-
 America, from Brazil to Mexico; but they have nev-
 abited the northern countries. They cannot endure
 r rain; the change from wet to dry spoils their fur,
 then resembles badly dressed hemp, rather than
 or hair.

h is the description given of the Sloth, by Buffon
 her naturalists; and, judging of it from such a rep-
 ation, it is not wonderful that the animal has become
 bial as one of the most sluggish and wretched of
 role brute creation. It happens, however, that this
 ption of its habits and sufferings is sadly at variance
 uth. Mr. Waterton, who, in his numerous and pro-
 l journeys through the woods of South America,
 undant opportunities of studying the natural his-
 the Sloth, has shown the incorrectness of preced-
 iters upon this subject.

et us turn our attention (says he) to the Sloth, whose

haunts have hitherto been so little known, and probably little looked into. Those who have written on this singular animal have remarked that he is in a perpetual state of pain ; that he is proverbially slow in his movements ; that he is a prisoner in space ; and that, as soon as he has consumed all the leaves of the tree upon which he has mounted, he rolls himself up in the form of a ball, and then falls to the ground. This is not the case.

“ If the naturalists who have written the history of the Sloth had gone into the wilds, in order to examine his haunts and economy, they would not have drawn the foregoing conclusions ; they would have learned that, though all other quadrupeds may be described while resting on the ground, the Sloth is an exception to this rule, and that his history must be written while he is in the tree.

“ This singular animal is destined by nature to be produced, to live, and to die, in the trees ; and, to do justice to him, naturalists must examine him in his proper element. He is a scarce and solitary animal, and, being good food, he is never allowed to escape. He inhabits remote and gloomy forests, where snakes take up their abode, and where cruelly stinging ants and scorpions, and swamps, and innumerable thorny shrubs and bushes, obstruct the steps of civilized man. Were you to draw your own conclusions from the descriptions which have been given of the Sloth, you would probably suspect that a naturalist had actually gone into the wilds with the firm determination to find him out and examine his haunts, and see whether Nature has committed any blunder in the formation of this extraordinary creature, which appears to us so forlorn and miserable, so ill put together, and so totally unfit to enjoy the blessings which have been so bountifully given to the rest of animated nature ; for, as has formerly been remarked, he has no voles to his feet.

he is evidently ill at ease when he tries to move on the ground; and it is then that he looks up in your face with countenance that says, 'Have pity on me, for I am in pain and sorrow.'

It mostly happens that Indians and Negroes are the people who catch the Sloth, and bring it to the white man. It may be conjectured that the erroneous accounts we have hitherto had of the Sloth have not been penned with the slightest intention to mislead the reader, but that these errors have arisen naturally by examining the Sloth in those places where Nature never intended that he should be exposed.

However, we are now in his own domain. Man but rarely frequents these thick and noble forests, which extend wide on every side of us. This, then, is the proper place to go in quest of the Sloth. We will first take a view of him. By obtaining a knowledge of his anatomy we shall be enabled to account for his movements after, when we see him in his proper haunts. His fore legs, or, more correctly speaking, his arms, are apparently much too long, while his hind legs are very short, and look as if they could be bent almost to the shape of a screw. Both the fore and hind legs, by their form, and by the manner in which they are joined to the body, quite incapacitated from acting in a perpendicular direction or in supporting it on the earth, as the bodies of other quadrupeds are supported, by their legs. Hence, when we place him on the floor, his belly touches the ground. It is granted, that he supported himself on his legs like other animals, nevertheless he would be in pain, for he has no soles to his feet, and his claws are very sharp and long, and curved; so that, were his body supported by his feet, it could be by their extremities; just as your body would

be were you to throw yourself on all fours, and try to support it on the ends of your toes and fingers—a try-situation. Were the floor of glass, or of a polished surface, the Sloth would actually be quite stationary; but the ground is generally rough, with little protuberances, such as stones, or roots of grass, &c. this just annoys the Sloth, and he moves his fore legs in all directions, in order to find something to lay hold of; and when he has succeeded, he pulls himself forward, and is thus enabled to travel onwards, but, at the same time, in so tardy a manner as to acquire him the name of Sloth.

“Indeed, his looks and his gestures evidently show his uncomfortable situation; and, as a sigh every now and then escapes him, we may be entitled to conclude that he is actually in pain.

“Some years ago I kept a Sloth in my room for several months. I often took him out of the house, and placed him upon the ground, in order to have an opportunity of observing his motions. If the ground were rough, he would pull himself forwards by means of his fore legs, at a good pace, and he invariably shaped his course towards the nearest tree. But if I put him upon a smooth, well trodden part of the road, he appeared to be in pain and distress: his favourite abode was the back of a chair, and, after getting all his legs in a line upon the back part of it, he would hang there for hours together, often, with a low and inward cry, would seem to invite me to take notice of him.

“The Sloth, in its wild state, spends its whole life in the trees, and never leaves them but through necessity or accident. An all-ruling Providence has ordained that the eagle should tread on the surface of the earth, the eagle to soar in the expanse of the skies, and the monkey and squirrel to dwell in the trees: still these may change their relative si-

feeling much inconvenience ; but the Sloth is to spend his whole life in the trees ; and, what is extraordinary, not *upon* the branches, like the squirrel monkey, but *under* them. He moves suspended from the branch, he rests suspended from it, and he is suspended from it. To enable him to do this, he has a very different formation from that of any other quadruped.

His seemingly bungled conformation is at once useful for ; and, in lieu of the Sloth leading a painful existence entailing a melancholy and miserable existence, it is but fair to surmise that it just enjoys as much as any other animal, and that his extraordinary and singular habits are but further proofs to us to admire the wonderful works of Omnipotence.

It must be observed, that the Sloth does not hang downwards like the vampyre. When asleep, he supports himself on a branch parallel to the earth. He first seizes the branch with one arm, and then with the other ; and then, bringing up both his legs, one by one, to the branch ; so that all four are in a line : he seems perfectly at rest in this position. Now, had he a tail, he would be at a loss to know what to do with it in this position. If he were to draw it up with his legs, it would interfere with his legs ; and were he to let it hang down, it would be the sport of the winds. Thus his deficiency of tail is a great benefit to him ; it is merely an apology for a tail, scarcely exceeding an inch and a half in length.

When he was climbing, he never used his arms together, but first one and then the other, and alternately. There is a singularity in his hair, different from that of all other animals, and, I believe, hitherto unnoticed by naturalists ; his hair is thick and coarse

at the extremity, and gradually tapers to the root, where it becomes fine as the finest spider's web. His fur has so much the hue of the moss which grows on the branches of the trees, that it is very difficult to make him out when he is at rest.

"The male of the three-toed Sloth has a longitudinal bar of very fine black hair on his back, rather lower than the shoulder-blades; on each side of this black hair there is a space of yellow hair, equally fine; it has the appearance of being pressed into the body, and looks exactly as if it had been singed. If we examine the anatomy of his fore legs, we shall immediately perceive by their firm and muscular texture, how very capable they are of supporting the pendent weight of his body, both in climbing and at rest; and, instead of pronouncing them a bungled composition, as a celebrated naturalist has done, we shall consider them as remarkably well calculated to perform their ordinary functions.

"As the Sloth is an inhabitant of forests within the tropics, where the trees touch each other in the greatest profusion, there seems to be no reason why he should confine himself to one tree alone for food, and entirely strip it of its leaves. During the many years I have ranged the forests, I have never seen a tree in such a state of nudity; indeed I would hazard a conjecture, that by the time the animal has finished the last of the old leaves, there would be a new crop on the part of the tree he had stripped first, ready for him to begin again, so quick is the process of vegetation in these countries.

"There is a saying among the Indians, that when the wind blows, the Sloth begins to travel. In calm weather he remains tranquil, probably not liking to cling to the brittle extremity of the branches, lest they should break with him in passing from one tree to another; but as soon as

ses, the branches of the neighbouring trees
 woven, and then the Sloth seizes hold of
 issues his journey in safety. There is seldom
 of calm in these forests. The trade wind
 sets in about ten o'clock in the morning, and
 he may set off after breakfast, and get a con-
 y before dinner. He travels at a good round
 were you to see him pass from tree to tree, as
 you would never think of calling him a Sloth.
 would appear that the different histories we
 quadruped are erroneous on two accounts:
 the writers of them, deterred by difficulties and
 chances, have not paid sufficient attention to him
 he haunts; and, secondly, they have described
 motion in which he was never intended by na-
 a figure, I mean on the ground. The Sloth is
 slow to proceed on his journey upon a smooth
 or, as a man would be who had to walk a mile
 on a line of feather-beds.

As we were crossing the Essequibo, I saw a
 dead Sloth on the ground upon the bank; how he
 body could tell: the Indian said he had never
 Sloth in such a situation before; he would
 come there to drink, for both above and below
 the branches of the trees touched the water, and
 an easy and safe access to it. Be this as it
 the trees were not above twenty yards from
 he could not make his way through the sand time
 escape before we landed. As soon as we got
 he threw himself on his back, and defended him-
 self in style with his fore legs. 'Come, poor fel-
 low to him, 'if thou hast got into a hobble to day,
 do not suffer for it: I'll take no advantage of thee
 here; the forest is large enough both for thee and

me to rove in: go thy ways up above, and enjoy thyself in these endless wilds; it is more than probable thou wilt never have another interview with man. So, fare thee well.' On saying this, I took up a large stick which was lying there, held it for him to hook on, and then conveyed him to a high and stately mora. He ascended with wonderful rapidity, and in about a minute he was almost at the top of the tree. He now went off in a side direction, and caught hold of the branch of a neighbouring tree; he then proceeded towards the heart of the forest: I stood looking on, lost in amazement at his singular mode of progress. I followed him with my eye till the intervening branches closed in betwixt us; and then I lost sight forever of the two-toed Sloth. I was going to add, that I never saw a Sloth take to his heels in such earnest; but the expression will not do, for the Sloth has no heels."

THE SURIKAT.

THIS animal is a native of the Cape of Good Hope and of Java. It is very lively and subtle; it sometimes walks on its hinder legs, and often sits upright on them, with its fore paws hanging down by the side of the body. Its head is then erect, and moves upon the neck as on a pivot. It is not so large as a rabbit, and nearly resembles the marmoset in size; its tail is somewhat longer, and its snout is more prominent and raised. It is more like the coati than any other animal. Its character likewise is nearly original, since it neither belongs to the coati nor the hyæna. These two are the only animals who have four toes to every foot.

This animal eats raw meat with eagerness, and particularly poultry and mice. It is a great enemy to the cockroach. It is fond of fish, and still more of eggs. It will eat neither fruit nor bread. It makes use of its fore feet

the squirrel, to carry its food to its mouth: it laps its like a dog, and will not touch water unless it is lukewarm. Of one in the French king's collection, its common name was its own urine, although of a very strong smell. It does not chew its food, but often scratched the brick or red walls with its nails. It was so well tamed, that it answered to its name when called: it went about the house like a cat, and had two voices; one like the barking of a young dog, when it was left long alone or heard an unusual noise; on the contrary, when it was caressed, or when it showed some token of pleasure, it made a noise as long as that of a rattle briskly turned. It was a female animal, and only lived one winter, notwithstanding the care that was taken to feed and keep it warm.

THE TARSIER

The animal remarkable for the length of its hind legs, whose hind legs are longer than the rest of its whole body. The bones of the feet, and especially those which compose the greater part of the tarsus, are of an extraordinary size; and from this very character we have taken its name. It has five toes to every foot; it has, as I may say, four hands; the four toes are very long, and sufficiently divided; the great toe of those behind, or the thumb, is terminated by a claw; and, although the claws of the other toes are small, they are, at the same time, so short and so small, that they do not prevent the animal from using its fore legs like hands. The jerboa, on the contrary, has only four toes, and four long and crooked claws, on its fore feet; instead of a thumb, it has only a tubercle without any claw. But, what removes it further from our Tarsier, is, that it has only three fingers, or three great claws, on the hind feet. The Tarsier is found in some remote islands of

India; particularly in Amboyna. One species is a native of Madagascar.

THE PHALANGER.



THESE animals, which have been sent to us by the name of *Surinam Rats*, have much less affinity with rats, than with the animals of the same climate of which we have given the history, under the names of the *marmoset* and *opossum*. As it has never been named by any artist or traveller, we have denominated it from its character, which is totally different from that of any other animal, and have called it *Phalanger* from its *phalanges* being singularly formed, and because its two fore toes are conjoined in such a manner, that this double toe appears like a hoof, separated only near the claws; the thumb is separated from the fingers, and has no claws at its extremity.

These animals vary in the colour of the hair; some species are about the size of a small rabbit, or a very large rat, and are remarkable for the excessive length of their tail, snout, and the form of their teeth, which alone is sufficient to distinguish the Phalanger from the marmoset, the surikat, the rat, and every other species of animals to which it may be supposed to relate. The Fox Phalanger, to which White gives the name of the Vulpine Opossum, is more than three feet and a half in length. The Dwarf Phalanger, on the contrary, which is found on an island near Van Dieman's Land, is not larger than a mouse.

THE COQUALLIN.

is animal was sent from America, by the name of the *orange-coloured Squirrel*. It is, however, not a squirrel, though sufficiently resembling it by the shape of the body; for it not only differs by many external characters, but also by its nature and manners.

The Coquallin is much larger than the squirrel; it is a beautiful animal, and very remarkable for its colour, its body being of a fine yellow, and its head as well as body marked with white, black, brown, and orange; it covers its back with its tail, like the squirrel, but has not, like that animal, small brushes of hair at the tips of the ears: it never climbs up any trees, but dwells in the hollows and under the roots of trees, like the garden squirrel. In such places, it builds its nest, and rears up its young; it likewise stores its little habitation with corn and fruit, to feed upon during the winter; it is a jealous and cunning animal, so exceedingly wild, that it is impossible to be tamed. The Coquallin is only found in the southern parts of America; the white and orange coloured squirrels of the West Indies are much smaller, and their colours uniform. These are true squirrels, which climb up trees, and produce their young on them; while the Coquallin, and the American suisse, burrow under ground, like rabbits, and have no other affinity with the squirrel, than a resemblance in the external form. M. Frederic Cuvier considers it as nothing more than a variety of the *sciurus capensis*.

THE HAMSTER RAT.

This animal, which is also called the German Marmot, is about the size of the brown rat, but much thicker. Its colour is reddish brown above, and black beneath; there are

three large oval white spots on each side of the body. The ears are somewhat large. But the peculiarity which distinguishes it is, that there are two pouches or receptacles for food on each side of its mouth. These are not visible externally when empty; but, when distended, they resemble a pair of tumid bladders, with a smooth veiny surface, which the fur of the cheeks conceals. The pouches of one which Dr. Russel dissected were found stuffed with French beans, arranged lengthways, in such compact and accurate order, that it was exceedingly difficult to conceive how they had been so placed. When loosely laid on a table, they formed a heap thrice the bulk of the animal's body. Austria, Silesia, and some parts of Germany, are their native places.



The Hamster is one of the most famous and most pernicious rats that exist. We have fed one of these animals for many months, says Buffon, and afterwards had it dissected, and observed, that the Hamster resembled more the water rat, than any other animal; it resembled it also in the smallness of its eyes, and the fineness of its hair; but its tail is not so long as that of a water rat; but, on the contrary, it is much shorter than that of the short-tailed mouse. All these animals live under the earth, and seem to be animated with the same instinct; they have nearly the same habits, and particularly that of collecting corn, &c. and making great magazines in their holes.

The habitations of the Hamsters are different, according to their sex and age, and also to the quality of the land they inhabit. That of the male Hamster is an oblique

, and at the entrance is a portion of earth thrown a distance from the entrance, there is a single rich descends in a perpendicular manner to the or cavities of the habitation. There is no hill-earth near that hole ; which makes us presume, oblique entrance is made hollow from the outside, the perpendicular hole, by which they come out, ed withinside, from the bottom to the top.

habitation of the female has also an oblique passage with two or three, and even eight perpendicular by which the young ones may come in and go out. The male and the female have each their separate abode : the female is deeper than that of the male.

perpendicular hole is the common passage for coming and going out. By the oblique road, they throw earth they scratch up. This passage also has a declivity into some of the cavities, and another more to others, which serve for a free circulation of the air in his subterraneous habitation. The cavity where the female breeds her young contains no provision, but is lined with straw or grass. The depth of the burrow is very different. The young Hamster, of a year old, makes its burrow only a foot deep, while the old animal hollows it to the depth of four or five feet. All the burrows communicate together in one habitation, which is eight or ten feet in diameter.

The animals store their magazines with dry clover, and other grain ; beans and peas they likewise provide themselves with ; all these they are particularly careful to separate from the husk, which, with every other thing they do not make use of, they carry out of their burrow by this oblique passage.

The Hamster commonly gets in its winter provisions at the end of August. Its stores are not meant for a

winter supply, it being torpid at that season, but for the preceding and following period. When it has filled its magazines, it covers them over, and shuts the avenues to them carefully with earth. This precaution renders the discovery of these animals very difficult. The heaps of earth which they throw up before the oblique passage, are the only marks to trace their habitations. The most usual method of taking them is by digging them out of their holes, which is attended with much trouble, on account of the depth and extent of their burrows; however, a man versed in this business, commonly effects his purpose with good success. In autumn, he seldom fails of finding two good bushels of corn in each of their habitations; and he draws great profit from the skins of the animals. The Hamsters bring forth their young two or three times in a year, and seldom less than five or six each time. Some years there are great numbers of them to be seen, and in others, scarcely any to be met with. They multiply in great numbers when the seasons are wet, which causes a great scarcity of grain, by the devastation these animals make.

The back of the Hamster is commonly brown, and the belly black; however, there are some of a gray colour; and this difference may proceed from their age. Besides these, there are some often met with which are entirely black.

The Hamster begins to burrow at the age of six weeks, or two months; it never procreates, however, in the first year of its growth. There are numbers produced in one year, insomuch, that, in some parts of Germany, from their occasioning a dearth of corn, a reward is fixed on their heads. In one year, about eleven thousand skins, in another fifty-four thousand, and in a third year eighty thousand were produced at the Town Hall of Gotha, as vouchers to

the bearers to receive the reward. They are like such great numbers, that their fur is sold exceed-reap.

olecat is a great enemy to the Hamsters, which he is in a great number; he not only pursues them on t follows them into their burrows, and feeds on them

Hamster itself is one of the most inveterate enemies vn kind. His life (says a recent naturalist) is di-etween eating and fighting. He seems to have no ussion than that of rage; which induces him to at-ery animal that comes in his way, without in the ending to the strength of the enemy. Ignorant of of saving himself by flight, rather than yield he w himself to be beaten in pieces with a stick. If s a man's hand, he must be killed before he will hold. The magnitude of the horse terrifies him as the address of the dog, which last is fond of hunt-

When the Hamster perceives a dog at a distance, ns by emptying his cheek-pouches, if they happen illed with grain: he then blows them up so pro-y, that the size of his head and neck greatly ex-at of the rest of the body. He raises himself on legs, and thus darts upon the enemy. If he catch-he never quits his foe but with the loss of life. ocious disposition prevents the Hamster from being e with any animal whatever. He even makes war his own species. When two Hamsters meet, they il to attack each other, and the stronger always the weaker. A combat between a male and fem-monly lasts longer than that between two males. egin by pursuing and biting each other; then each retires aside, as if to take breath. After a short they renew the combat, and continue to fight till hem falls.

THE BOBAC, AND OTHER MARMOTS.*

THE name of the *Strasbourg Marmot* has been affixed to the hamster, and that of the *Poland Marmot* to the Bobac; but, it is certain, that the hamster is not a Marmot; and it is also probable, that the Bobac is one, as it only differs from the Marmot of the Alps, by the colour of its fur, which is not quite so gray. There is a great claw, or toe, to the fore feet of the hamster, while the Marmot has only four toes to each foot; but in other respects it perfectly resembles it. It is the same with respect to the Canadian Marmot, or Monax, which some travellers have termed the *Whistler*.† It only seems to differ from the Marmot by the tail, which is thicker of hair.

The Bobac constructs burrows obliquely in the ground, of the depth of two, three, or four yards, and consisting of several galleries. Where the soil is hard or rocky, thirty or forty animals work in concert. Towards the approach of winter, they fill their burrows with the finest hay. They are good-natured and timid, but when driven to defend themselves they bite severely. It is easy to tame them.

The Canadian Monax, the Poland Bobac, and the Alpine Marmots, are, indeed, probably all the same kind of animal, under different denominations. As this species prefers the coldest and highest mountains in Poland, Russia, and other parts of the north of Europe, no wonder it is found in Canada, where it is only somewhat less than in Europe.

The Siberian animal also, called by the Russians *Jerus Chka*, is a kind of Marmot, still less than the Canadian Monax.

* See Vol. I. p. 414.

† See Vol. I. p. 421.

JERBOA



is a generical name, which we make use of in this place, to denote those remarkable animals whose legs are extremely disproportionate. In many particulars, both of habit and conformation, the Jerboa bears a striking resemblance to the kangaroo tribe, though, according to the Linnæan system, it does not class with it. Like the kangaroo, it has long hind legs, which it uses in leaping. It seldom goes on all fours; and its fore legs, which are very short, are almost wholly employed in holding its food, and in making its burrows. There are four distinct species or varieties of this kind. First, the *Tarsier*, of which we have already spoken, and which is certainly a particular species, as its toes are made like those of a monkey, having five on each foot. Secondly, the *Jerboa*, whose feet are like the *Asiapedes*, with four claws on those before, and three on those behind. Thirdly, the *Alagtata*, whose feet are formed like those of the Jerboa, with this difference, that they have five toes on the fore, and three on the hinder feet, with a spur or a kind of thumb, or a fourth toe, much shorter than the other. Fourthly, the *Daman Israel*, or *Lamb of Israel*, which has four toes to the fore feet, and five to the hinder, which may possibly be the same animal which Linnæus has described by the name of *Mus Longipes*.

The head of the Jerboa is sloped somewhat in the manner of a rabbit ; but the eyes are larger, and the ears shorter, though elevated and open, with respect to its size ; its nose and hair are of a flesh colour, its mouth short and thick, the orifice of the mouth very narrow, the upper jaw very full, the lower narrow and short, the teeth like those of the rabbit ; the mustachoes are composed of long black and white hairs ; the fore feet are very short, and never touch the ground ; they are furnished with four claws, which are only used as hands to carry the food to the animal's mouth ; the hind feet have but three claws, the middle one longer than the other two ; the tail is three times as large as its body, and is covered with short stubborn hair, of the same colour as that on the back, but tufted at the end with longer and softer hair ; the legs, nose, and eyes are bare, and of a flesh colour ; the upper part of the head and back are covered with an ash coloured hair ; the sides, throat, and belly are whitish ; and below the loins, and near the tail, there is a large, black, transversal band, in form of a crescent. While leaping, the Jerboa stretches out its tail, but while standing or walking, it carries it in the form of an S, the lower part touching the ground.

These little animals commonly conceal their hands, or fore feet, with their hair ; so that they are said by some to have only hinder feet. When they move from one place to another, they do not walk, that is, advance one foot before the other, but jump, or bound, about four or five feet at a time : this they do with the greatest ease and swiftness, holding themselves erect, after the manner of birds when they hop on the ground. Instead, however, of proceeding straight forward, it jumps first to one side, and then to the other. Such is its agility, that even a greyhound can scarcely kill it. They rest themselves in a kneeling posture, and only sleep in the day. In the night

they seek for their food like hares, and, like them, on grass, corn, and other grain. They are of a gentle temper, but not to be tamed beyond a certain limit. They dig like rabbits, and in much less time. The excavations which it forms are many yards long, oblique, and deep, but not more than a half a yard from the surface of the ground. It is fond of warmth, making its nest of the finest and most delicate herbage; and seems sensible of the approach of bad weather by wrapping itself up closely, with its head between its thighs. It sleeps during the winter, without nutriment. The Jerboa breeds several times in the summer, and usually brings forth seven or eight young ones at a litter. The flesh is reckoned one of the best of delicacies by the Arabs. They are found in Egypt, Phœnicia, Barbary, &c.

THE ICHNEUMON.



From the tip of the nose to the end of the tail, the Ichneumon is from twenty-four to forty-two inches in length; the first half of which is occupied by the tail. At the base, the tail is very thick; it tapers gradually towards the point, and is slightly tufted. The eyes are of a bright red; the ears are almost naked, small and rounded: the nose is long and slender. The legs are short. The hair is hard and coarse, and of a pale reddish gray, each hair being mottled with brown or mouse colour.

This animal is domestic in Egypt, like our cat; and, like that, is serviceable in destroying rats and mice: but its inclination for prey and its instinct are much stronger and more extensive than the cat's; for it hunts alike birds, quadrupeds, serpents, lizards, and insects: it attacks every living creature in general, and feeds entirely on animal flesh: its courage is equal to the sharpness of its appetite: it is neither frightened at the anger of the dog, nor the malice of the cat, nor even dreads the bite of the serpent: it pursues them with eagerness, and seizes on them, however venomous they may be. As soon as it begins to feel the impressions of their venom, it immediately goes in search of antidotes, and particularly a root that the Indians call by its name, and which, they say, is one of the most powerful remedies in nature against the bite of the viper. It sucks the eggs of the crocodile, as well as those of fowls and birds: it also kills and feeds on young crocodiles, when they are scarcely come out of their shell; and, as fable commonly accompanies truth, it has been currently reported, that, by virtue of this antipathy, the Ichneumon enters the body of the crocodile, when it is asleep, and never quits it till he has devoured its entrails. It was formerly deified by the Egyptians, for its serviceable qualities.

Naturalists have supposed many kinds of Ichneumons, because there are some larger than others, and of a different coloured hair; but, if we consider, that, being frequently reared in houses, they have, like other domestic animals, undergone varieties, we shall readily perceive, that this diversity of colour, and this difference of size, only indicate simple varieties, not sufficient to constitute a separate species. It also appears that the Ichneumons in Egypt, which may be said to be domestic, are longer than those in India, which are in a wild state.

The Ichneumon lives very willingly by the sides of

inundations, and other waters, and is reported to and dive occasionally, like an otter, and to remain considerable time beneath the liquid element. It is its habitation to seek its prey near habitable places. It sometimes carries its head erect, foreshortens its body, rises itself upon its hind legs; at other times, it extends and lengthens itself like a serpent: it often sits upon its hind feet, and often springs upon its prey: its eyes are lively, and full of fire: its aspect is beautiful, and very active, the legs short, the tail thick and very hard and the hair rough and bristly. Both male and female have a remarkable orifice, independent of the natural anus. It is a kind of pocket, into which an odoriferous matter filters. They pretend, that it opens this bag, or rather to refresh itself when too hot. Its nose is very long and its mouth narrow, which prevents it from seizing and biting any thing very large; but this defect is supplied by its agility, courage, and by its power: it easily strangles a cat, although much larger and fiercer than itself: it often fights with dogs; and, of whatever size they are, it commonly gets the better of them. It may easily be domesticated, and is then more obedient, and affectionate than a cat.

THE GRAY ICHNEUMON,

It is the Nems of Buffon, is a native of India, though Buffon assigns Africa as the country to which it belongs. It is of a pale gray, the hairs being for the major part a dirty yellowish white, relieved by narrow rings of brown towards their extremities. The head and limbs are of a darker hue than the other parts. A specimen of the animal is now in the menagerie of the Tower. It pos-

esses all the characteristic spirit and activity of the genus to which it belongs. On one occasion a dozen fall-grown



rats were let loose in a room sixteen feet square, in which this individual killed in little more than a minute.

THE VANSIRE.

Those who have spoken of this animal have taken it for the ferret, which indeed it resembles in many respects, though it differs from it by characters strong enough to make it a distinct species. It is now arranged among the ichneumons. The Vansire has twelve teeth, or grinders in its upper jaw, while the ferret has only eight. The Vansire also differs in the colour of its hair from the ferrets; although like every other animal which needs careful of rearing and increasing, those creatures are much, both male and female. It is found at the Mambo and at Madagascar, by the natives of which latter island is called Vohang-shira.

e animal called by some the *Weasel of Java*, and others the *Ferret of Java*, is a kindred species to the
ire.

THE FOSSAN



alled by some travellers the *Genet of Madagascar*; it is, in general, much smaller than the genet; and proves it not to be of that kind, is, that it has no ferous bag, the essential attribute belonging to that al. It has a slender body, covered with hair of an colour, mixed with tawny. The sides of the face are r; at the hind part of the head are four black lines, nding from thence towards the shoulders; the tail is , and annulated with black. Its manners are much like e of our polecat; and, when the male Fossan is in , it emits a very strong smell like musk. It eats both and fruit, but prefers the last, particularly bananas. a very wild animal, and very difficult to be tamed. eye of the Fossan represents a black globe, very large mparison with the size of its head, which gives this al a mischievous look. It is a native of Madagascar, ea, Cochin China, and the Philippine Isles. It is called Berba in Guinea.

THE MAKI.

is name of Maki has been given to many different ls of animals. The first class is the Mcock, or Ma- co; the second is the Mongoos, commonly called the

Brown Maki; and the third kind is the *Vari*, called some the *Pied Maki*. They all have a considerable affinity with the monkey tribe, though they differ from some essential particulars. Like the monkeys, they belong to the quadrumana.

The *Macauco* (which is the ring-tailed lemur) is a beautiful animal, remarkable for the largeness of its eyes, and the length of the hinder legs, which exceed those before; by its beautiful and long tail, continually elevated and in motion, and upon which upwards of thirty rings, alternately black and white, very distinct and separate one from the other. It is tame; and, although it greatly resembles the monkey in many particulars, it is not so malicious in its nature. It is a gregarious animal, commonly found in company in its natural state; in Madagascar, thirty or forty are seen sitting together. It sleeps in a sitting posture, with its head resting upon its breast; its body is no thicker than a cat; but is longer; and its ears appear larger, as the limbs of the animal are very long. The hair is soft, and stands upright.

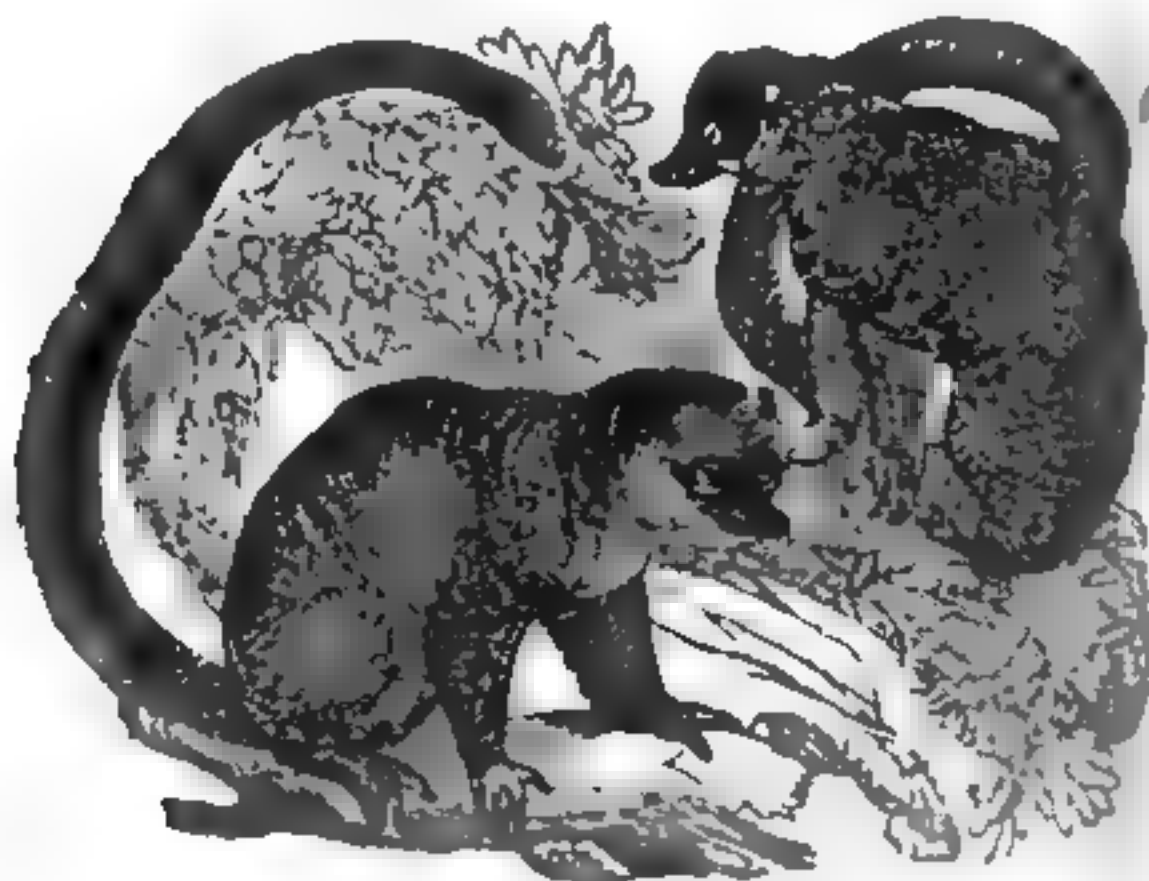
The *Mongoos* is less than the *Macauco*; but it is like that, of a short and silken nature, but a little larger. The nose is also thicker, and much resembling the *Vari*. We had a *Mongoos* in our possession for many years; its coat was of a brown colour, the eyes black, the nose black, and the ears short. It had a custom of playing with and biting its tail, and had, by this means, lessened it by four or five of the last vertebræ. When it got loose it visited the shops in the neighbourhood, and would make free with fruit, sugar, sweetmeats, &c. to obtain which it would open the boxes. At such times it was difficult to retake it; and it would bite those that attempted to catch it, even its keeper.

Vari (which is the lemur macaco of Linnæus) is larger, stronger, and wilder than the Macauco, and is to be even exceedingly savage and mischievous in its state. Travellers tell us, that these animals are as voracious as tigers, and very difficult to be tamed; and its voice is so very loud, that, when there are only two in the woods, it might be imagined that the noise made proceeded from a hundred. Others, however, on the mere appearance of truth, describe it as of a mild and gentle disposition. Its hair, in general, is much longer than that of the Macauco; and it has a kind of ruff round its neck, consisting of very long hair. In other respects, its hair is black and white, and, although very long, stands upright: its snout is thicker and longer than that of the Macauco; its ears much shorter, and edged with white hair; and its eyes are of so deep an orange colour, if not minutely inspected, they appear to be red. The Macauco, the Mongoos, and the Vari, are all of the same country. They seem to be confined to Madagascar and the neighbouring islands.

THE WHITE HEADED MONGOOS, OR LEMUR.

In this variety of the Mongoos there are now a male and a female in the Tower Menagerie. "It is characterized (says Mr. Bennett) by the clear fulvous brown colour of the upper surface of the body and outer side of the limbs, gradually becoming lighter on the under and inner surface, and deepening in its shade towards the tail, the lower part of which is nearly black. The muzzle and hands are bluish black. The male has the whole of the forehead, the sides of the cheeks, and the under part of the lower lip covered with a white fur, which in the female is of a blackish gray, and much less developed; her

general colour is also of a lighter tinge. This remarkable difference would lead us to question the specific identity of the two animals, were we not assured by M. P. Com, that he had verified the fact by what is usually regarded as an unequivocal test. Mr. McLeay has, however, thrown considerable doubt upon the accuracy of the inference thus attempted to be drawn, by exhibiting to the Linnæan Society a female, in whom the white fur of the tail was as distinctly developed as in her male companion. The whole of the species of this group require, in fact, an accurate revision."



The manners and habits of the Mongooses tribe are thus described by the same accurate and entertaining writer:—"The whole of the genus are natives of Madagascar and of two or three of the smaller islands in its immediate vicinity. They appear to occupy in that remarkable and very imperfectly known country the place of the minks."

of which have yet been detected within its precincts. They are said to live in numerous troops, upon the trees, to feed upon fruits and insects; but their habits in a state of nature have not yet been observed with sufficient accuracy to enable us to form any clear idea of their mode of existence. In captivity, they are particularly tame, and well-tempered, fond of being noticed, delighting in motion and climbing and leaping with surprising agility. They are, however, in some degree nocturnal; and when undisturbed pass a considerable portion of the day in sleep. When alone, they roll themselves up in the form of a ball, and curl their long tail in a very curious manner round their body, apparently for the purpose of keeping themselves warm; for they are naturally chilly, and delight in basking in the rays of the sun, or in creeping as close as possible to the fire. When two of them are confined together they interlace their limbs and tails after a singular fashion, and placing their heads in such a position as that they may, if disturbed, see what is going on behind their backs, fall comfortably asleep."

THE BLACK-FRONTED LEMUR.

DIFFICULT as it is to arrive at a satisfactory proof of the actual specific distinction of these animals, we feel convinced that that which is now before us possesses a just claim to be separated from the White-fronted Lemur. Their difference, it is true, is nearly equal, and there is little if any difference in their form; but their colours, invariable as we have hitherto found them, furnish sufficient ground for regarding them as distinct. The general colour of their upper parts of the body, is a dark ashy gray; the chin, throat, and chest are pure white; the forehead and sides of the

face are black and the under parts are rufous. They are perfectly tame and good tempered, and extremely gentle.

Zoological Garden.

THE BENGAL LORIS, OR SLOW LEMUR.



THE Lemurs are closely allied to the monkeys, by their habits and their hand-like paws. It is in the shape of the head, which has some resemblance to that of the dog, and in the great length of their hind legs, that they chiefly differ from them. So long are the hind legs, that, when the animals walk on all fours, their shoulders are much less elevated than their haunches. In climbing trees this is of great advantage to them. Many of them are exceedingly active, and leap from branch to branch with a rapidity which almost baffles the eye to follow.

Not so, however, the Bengal Loris, which is so sluggish

otions, that some have been erroneously induced
der it as a sloth. It is about the size of a small
has a flattish face, a nose rather sharp, and ex-
prominent eyes; it is of a pale brown or mouse
round the eyes is a circle of dark brown, and
the middle of the back runs a stripe of the same col-
ouring the greatest part of the day it sleeps, or at
times without motion.

One of these animals is described by the late Sir Wil-
son, in the fourth volume of the Asiatic Research-
es. 'In his manners (says he) he was for the most part
gentle, except in the cold season, when his temper seems
very changed; and his Creator who made him so sensi-
ble to cold, to which he must often have been exposed
in his native forests, gave him, probably for that rea-
son, a thick fur; which we rarely see on animals in these
northern climates. To me, who not only constantly fed
and bathed him twice a week in water accommodated
to the seasons, and whom he clearly distinguished from
other animals, he was at all times grateful; but when I disturbed
him in winter he was usually indignant, and seemed to re-
buke me with the uneasiness which he felt, though no
other precautions had been omitted to keep him in a
sufficient degree of warmth. At all times he was pleased at
being stroked on the head and throat, and he frequently
allowed me to touch his extremely sharp teeth: but his
temper was always quick; and when he was unseasonably
awakened, he expressed a little resentment, by an obscure
growl, like that of a squirrel; or a greater degree of dis-
content by a peevish cry, especially in winter, when he
was often as fierce, on being much importuned, as any
of the woods.

From half an hour after sunrise to half an hour before
sunset, he slept without intermission, rolled up like a

NATURAL HISTORY.

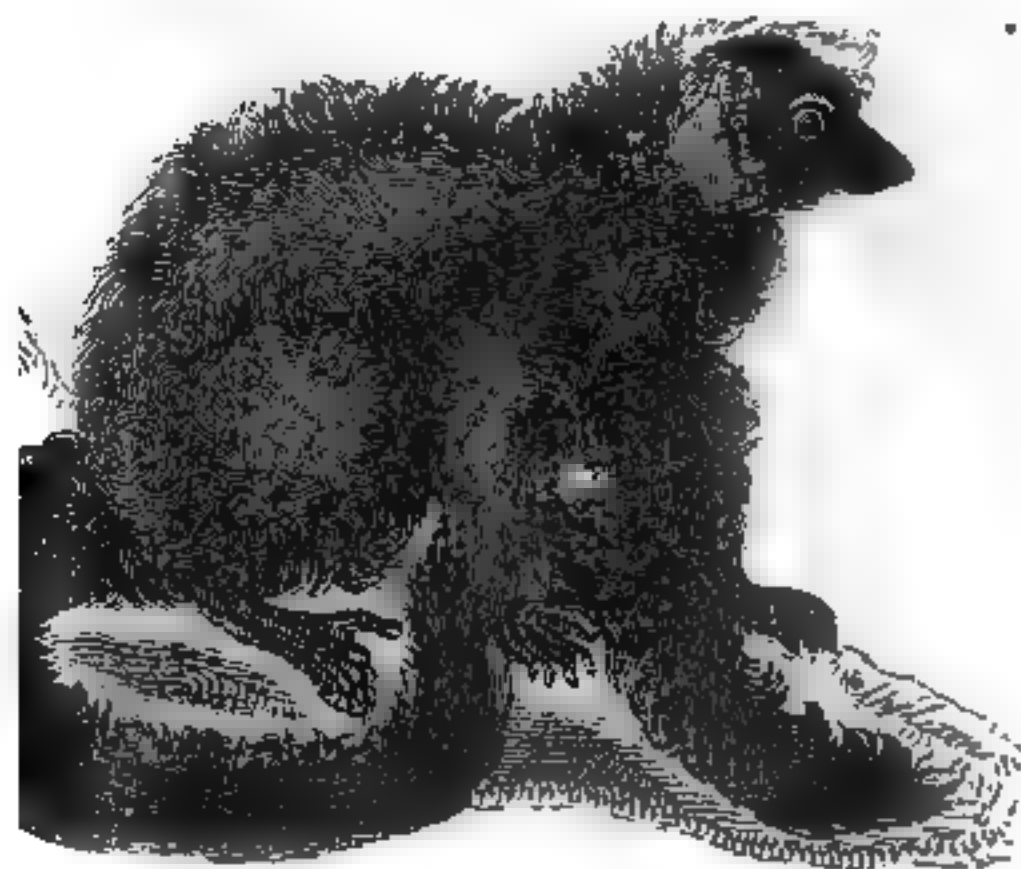
; and, as soon as he awoke, he began to prepare himself for the labours of his approaching day, licking his body like a cat; an operation which the flexibility of his neck and limbs enabled him to perform completely: he was then ready for a slight breakfast, which he commonly took a short nap; but when the day was quite set, he recovered all his vivacity. His ordinary food was the sweet fruit of this country; he eats peaches, and mangoes during the season; but he also eats guavas: milk he lapped eagerly, but was content with plain water. In general he was not voracious, but he never appeared satisfied with grasshoppers; and passed the whole night, while the hot season lasted, in prowling for them. When a grasshopper, or any insect, alighted within his reach, his eyes, which he fixed on his prey, glowed with uncommon fire; and, having drawn himself back, to spring on it with greater force, he seized the prey with both his fore paws, but held it in one of them while he devoured it. For other purposes, and sometimes even for that of holding his food, he used all his paws differently as hands, and frequently grasped with one of them the higher parts of his ample cage, while his three others were severally engaged at the bottom of it; but the posture of which he seemed fondest was to cling with all four of them to the wires, his body being inverted. In the evening, he usually stood erect for many minutes, playing on the wires with his fingers, and rapidly moving his body from side to side, as if he had found the utility of exercise in his unnatural state of confinement.

“A little before daybreak, when my early hours gave me frequent opportunities of observing him, he seemed to solicit my attention; and if I presented my finger to him, he licked or nibbled it with great gentleness, but eagerly to

I offered it, though he seldom ate much at his repast: when the *day brought back his night*, his *their* lustre and strength, and he composed himself to slumber of ten or eleven hours.

little friend was, on the whole, very engaging; when he was found lifeless, in the same posture in which he would naturally have slept, I consoled myself by saying that he died without much pain, and lived much pleasure as he could have enjoyed in a state of liberty."

THE RED LEMUR.



not only one of the most beautiful of the group to be'ongs, but it also possesses the additional reputation of being unquestionably the rarest known

Very little was known of it till within ten years of the present time, when a living individual was brought to England by M. Frederick Cuvier, in his splendid work.

A specimen in the collection at Exeter 'Change been noticed by Mr. Griffith.

The colour of this animal is of a bright rufous above, and that of the under parts a deep black. The hair of the upper tail is perfectly black. The hair of the upper tail is extremely long, soft and woolly. The face is lively and expressive. From the nose to the root of the tail, it measures upwards of two feet, and the tail is still longer.

THE JAVELIN BAT.

THE animal in question we have denominated the *Javelin Bat*, from a sort of comb, or membrane, on its nose, which perfectly resembles the head of a lance. Although this character alone is nearly sufficient to distinguish it from all other animals, yet we can add some others, as it has scarcely any tail, and its hair and size being like the common bat, with this difference, that it has six incisive teeth in the lower jaw, it has no canine teeth. This kind of Bat is very common in America, and is also found in Europe.

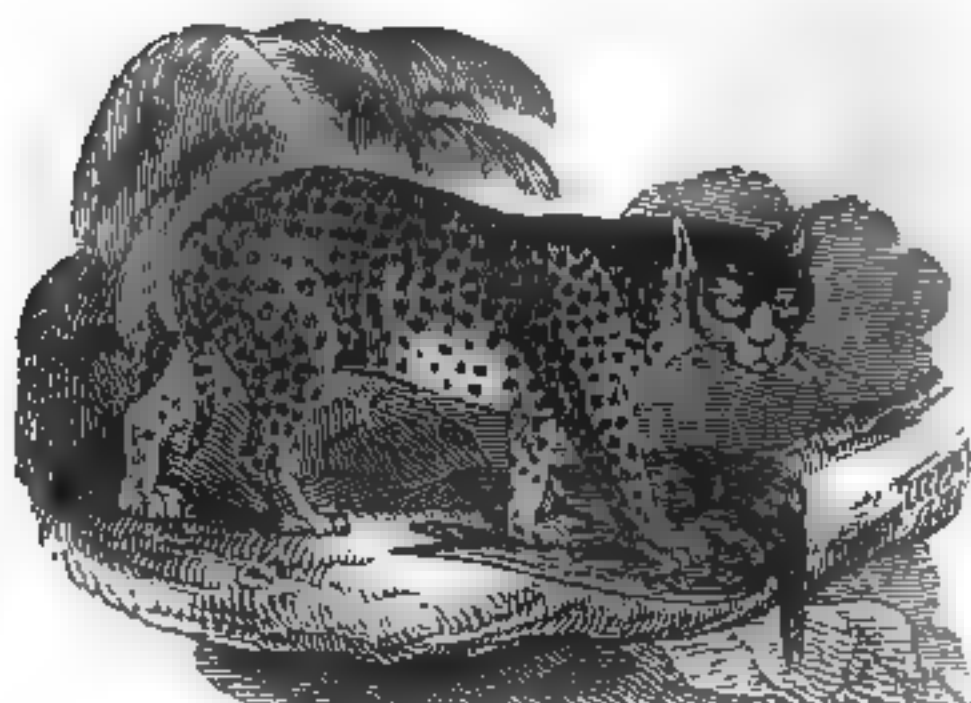
There is another Bat in Senegal, which has also a comb, or membrane upon its nose, not in the form of a horseshoe, as in one species we have observed, or the head of a javelin in this, but in the shape of an oval leaf. These Bats, being of different climates, are not simple varieties, but distinct and separate species.

Bats, which have, in other respects, great affinity to birds, by their power of flying, and by the strength of their pectoral muscles, seem to resemble them still more by these membranes, or combs, which they have on the sides of their face, for most birds have also combs, or membranes, about the beak, or head, which seem, in every respect, as analogous as those of the Bat kind.

CHAP. XX.

*Serval....The Ocelot....The Cape Cat....The Margay....
Jackal and the Adil....The Isatis....The Glutton....
Lemming....The Seal....The Common Seal....The Ur-
Seal....The Bottlenose Seal....The Sea Lion....The
rus, or Morse....The Manati....The Whale-tailed Morse
the Round-tailed Manati....The Sea Ape Manati.*

THE SERVAL OF INDIA.

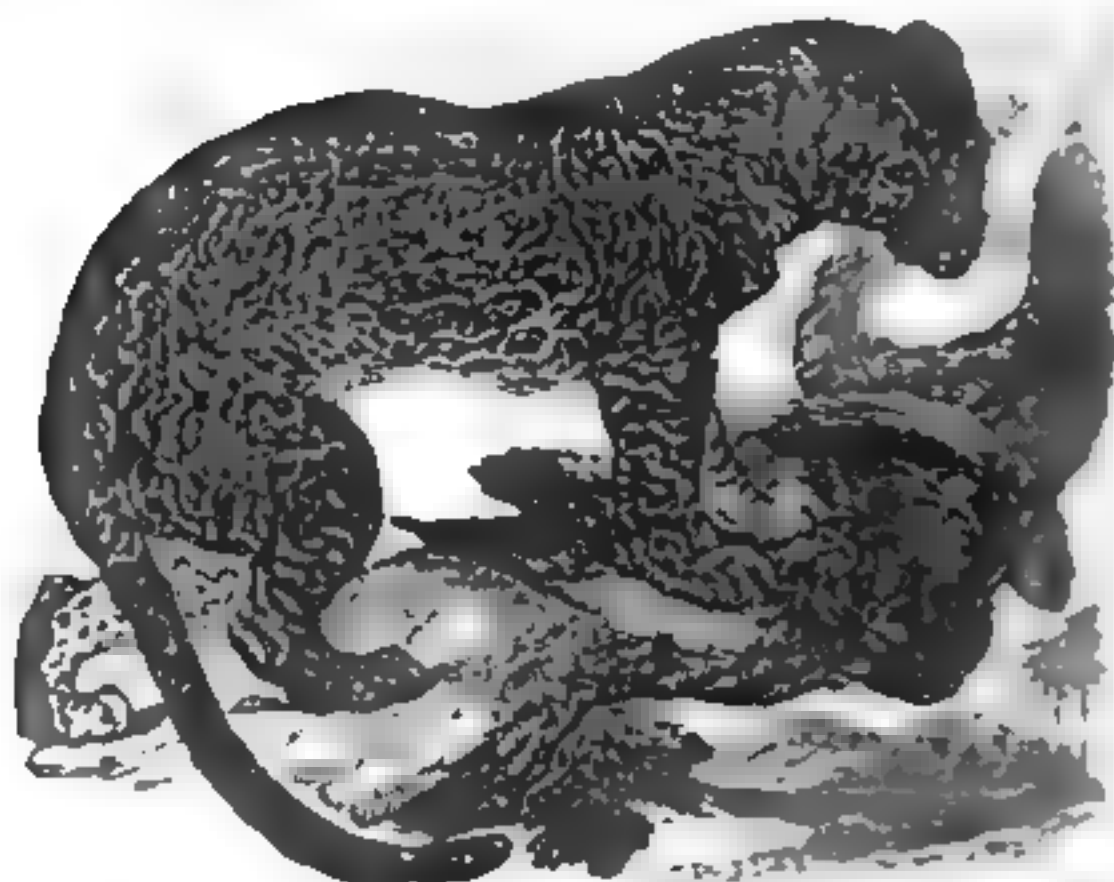


The name of Serval has been applied to several different
species, and there seems to be much doubt to which indi-
vidual it properly belongs. The Serval of India is found
in mountainous parts of that country and Thibet. It
measures two feet and a half from the nose to the tail,
and its tail was eight inches long. Its shape thick and strong;
its general colour was fox red or ferruginous, with the
underside and inside of the legs yellowish white; it was spotted
almost all over with black; the spots being of a long
shape on the back and round on the sides, belly and legs.
It is an extremely fierce and rapacious animal. It resides

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ally among trees; leaping with great agility from tree to another, and pursuing birds, &c.

THE OCELOT.



In describing the Ocelot, serious mistakes have been committed by Buffon and other naturalists. It is to Mr. Bennett that we are indebted for the latest and most accurate description of this animal. "Nearly equal in size to lynx of Europe (says he), but shorter in its proportions more graceful in its form, it holds, as it were, a middle position between the leopard and the domestic cat. In when full grown, is nearly three feet in length, a tail rather more than one; while its medium height be reckoned at about eighteen inches. The ground colour of its fur is gray, mingled with a slight tinge and on this it is elegantly marked with numerous dorsal bands, the dorsal one being continuous and black, and the lateral, to the number of six or seven on each side, consisting for the most part of a well

with black margins, sometimes completely sometimes running together. The centre of each offers a deeper tinge of fawn than the ground tinge; and this deeper tinge is also common to them; and this deeper tinge is also common to the upper part of the head and neck, and on the inside of the limbs, all of which parts are irregularly marked with full black lines and spots of various sizes. On the top of the head, between the ears, there pass downwards, towards the shoulders, two, or more frequently interrupted diverging bands, which are full black on the outside, but generally bifurcate posteriorly, and enclose a narrow fawn-coloured space within a black margin; beneath these there is a single longitudinal somewhat internarrow black line, occupying the centre of the neck.

The ears are short and rounded, and externally edged with black, surrounding a large central whitish space. The under parts of the body are whitish, spotted with black, and the tail, which is of the same ground colour as the body, is also covered with blackish spots. The length of the specimen in the Tower does not exceed seven inches, but, as it ends abruptly, it has, in all probability, been shortened by some accident."

The animal in the Tower was sent from Trinidad, under the name of the Peruvian Tiger. It is extensively spread over the American continent, being found in the widely extended regions of Mexico and Paraguay, where it abides in the depths of the forests during the day, and giving out at night to birds and small quadrupeds. As it is an active climber, it follows the birds even to their nests. "It is easily tamed (says Mr. Bennett) but seldom loses all of its natural ferocity. D'Azara, however speaks of one which was so completely domiciliated as to be left at liberty; it was strongly attached to its master, and attempted to make its escape. The specimen in the Tower, which is a male, is perfectly good-tempered,

NATURAL HISTORY.

y fond of play, and has, in fact, much of the manners of the domestic cat. Its food consists of rabbits and of birds, the latter of which it catches with the greatest dexterity, and always comes with their heads, of which it appears to be fond. It does not eat with the same voracity which characterizes nearly all the animals

THE TIGER-CAT OF AFRICA, OR CAPE CAT.



A beautiful animal was erroneously supposed to be the same as the serval of India, but was only seen a living specimen in Boston, for which an accurate likeness was taken, and a

the accuracy of the following description from this animal is extremely brilliant in colour, it brightest fulvous yellow, with jet black stripes the chin, throat and breast pale ash colour; black are black stripes; on the sides of the neck, breast numerous small crescent shaped spots upwards; on the legs numerous roundish spots; very strongly and distinctly annulated with yellow."

specimen of the Cape Cat to which we have referred, only one of the most beautiful animals we have

Its motions were exceedingly quick and and its countenance mild, lively, and pleasing. is very slender; the head and body not being those of a domestic cat; yet its height and e nearly twice as great.

THE MARGAY



naller than the ocelot. It resembles the wild ze and shape of its body; its head only is more snout longer, its ears rounder, and its tail longer also is shorter, and it has black streaks and brown ground. Its skin is fawn-coloured above,

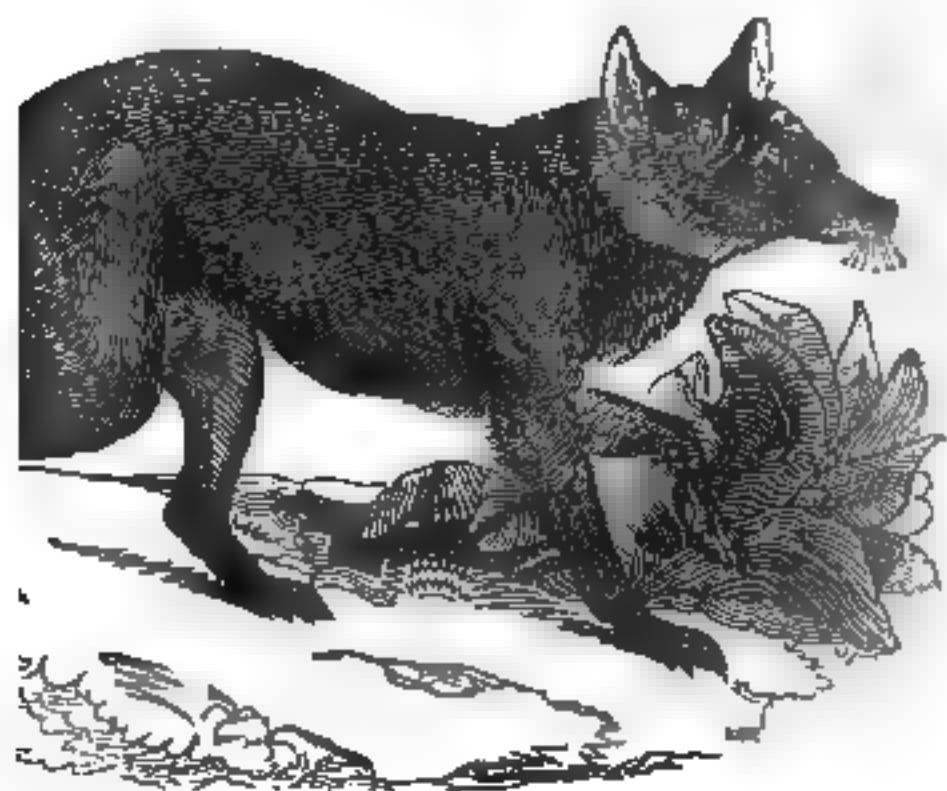
nd whitish beneath, with longish spots of dark brown, disposed in fine lines, straight on the back, and oblique on the flanks. The shoulders are spotted with a deep reddish brown, and bordered with a black brown. The tail is irregularly annulated. It was sent from Cayenne, by the name of the *tiger-cat*; and, in fact, it partakes of the nature of the cat and the jaguar. According to Fernandez, when this animal has arrived at its full growth, it is not quite so large as the civet; and, according to Marcgrave, whose comparison is juster, it is about the size of a wild cat, which it also resembles in its natural habits, living only upon fowls, and other small game; but it is very difficult to be tamed, and never loses its natural ferocity; it varies greatly in its colour, though commonly it is such as we have here described it. This animal is very common in Brazil and Guiana.

THE JACKAL AND THE ADIL.

WE are not certain that these two names denote two animals of different species. We only know that the Jackal is a larger animal, which is more ferocious and difficult to be tamed than the Adil. As both the Jackal and the Adil, however, are natives of the same countries; as the species has not been altered by a long domesticity; and as there is a considerable difference in the size, and even in the nature of these animals; we shall look on them as two distinct species.

“In size (says Mr. Bennett) he is about equal to the common fox, but he differs from that equally troublesome animal in the form of the pupils of his eyes, which correspond with those of the dog and of the wolf; in the comparative shortness of his legs and muzzle; in his less curled and bushy tail; and in the peculiar marking of his co

ing of his back and sides consists of a mixture black, which is abruptly and strikingly distinct from the deep and uniform tawny of his shoulders, and legs: his head is nearly of the same mixed with the upper surface of his body, as is also the tip of his tail, which latter, however, becomes black towards its extremity; his neck and throat are black, and the under surface of his body is distinguished



hue." The yellow which is about him is the reason why many authors have called the Jackal the gold-

species of the wolf approaches that of the dog, the Jackal finds a place between them both. The Jackal, as Belon says, is a beast between the wolf and the dog. In the ferocity of the wolf, it joins, in fact, a little of the docility of the dog. Its voice is a kind of a howl, between barking and groaning; it is more noisy than the dog and more voracious than the wolf; it never stirs but always in packs, of twenty, thirty, or forty;

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collect together every day, to go in search of ; they make themselves formidable to the most of animals, by their number ; they attack every beast or birds, almost in the presence of the humans ; they abruptly enter stables, sheepfolds, and places without any sign of fear ; and when they meet with any other thing, they will devour boots, harnesses, &c. and what leather they have not consumed, they take away with them. When they meet with any live prey, they dig up the dead carcases of men and animals. The natives are obliged to surround the graves of the dead with large thorns, and other things to prevent them from scratching and digging up the bodies. The dead are buried very deep in the earth, so that it is not a little trouble that discourages them. Numbers of them work together, and accompany their labour with a doleful cry : and, when they are once accustomed to feed on dead bodies, they run from country to country, in great armies, and keep close to the caravans. This animal may be styled the crow of quadrupeds ; for they will devour the most putrid or infectious flesh ; their appetite is so voracious and so vehement, that the driest leather is savoury to them, and skin, flesh, fat, excrement, or the most putrid animal, is alike to their taste.

THE FENNEC.

THIS beautiful and extraordinary animal, or fox of this genus, was first made known to Europeans by Bruce, who received it from his drogman, consul general at Algiers. Bruce kept it several months. Its favourite food was dates, and sweet fruit ; it was also very fond of eggs : it would eat bread, especially with honey

was immediately attracted if a bird flew near he would watch it with an eagerness that could not be diverted from its object; but he was dreadfully shy of man, and endeavoured to hide himself, the moment he perceived the approach of an animal of that species, though he showed no signs of preparing for any defence. Bruce never saw it at night, but he had any voice. During the day he was inclined to sleep, but became restless, and exceedingly uneasy as night came on.



He describes his Fennec as about ten inches long, of a dirty white colour; the hair on the belly being whiter, and longer than on the rest of the body. It builds its nest on trees, and does not burrow in the earth. There has been great diversity of opinion among naturalists concerning this animal. Cuvier treats Bruce's account as scarcely worthy of credit, but Denham and Clapperton, on their return from Central Africa, brought back the animal, and thus placed its existence beyond doubt. There appears to be no reason to question the accuracy of Bruce's description, and the Fennec is doubtless a common animal in some parts of Africa.

THE ISATIS,* OR ARCTIC FOX OF EUROPE.

THIS animal, which is a species of fox (*canis corsac*), is very commonly seen in the northern countries and but rarely found on this side sixty-nine degrees latitude; it is nearly two feet in length; it perfectly resembles the fox, in the form of its body, and the length of the tail; but its head is like that of a dog: its hair is softer than that of the common fox; its head is short in proportion to its body; it is broad towards the neck, and terminates in a sharp-pointed snout. Its ears are almost round. There are five toes and five claws to the fore feet, and only four toes and four claws to the hinder ones. The hair on every part of the body is about the length of two inches, smooth and soft as wool. The tail is black at the end, and so long that it touches the ground.

The voice of the Isatis partakes of the barking of the dog and the yelping of the fox. Those who deal in furs distinguish two animals of this kind, the one white, and the other ash-coloured: the last are the most valuable.

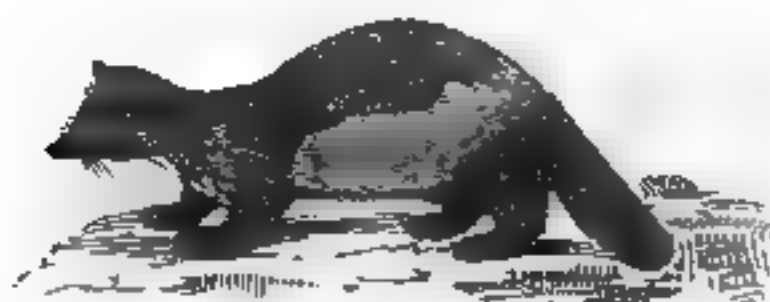
The Isatis lives upon rats, hares, and birds, which it catches with as much subtilty as the fox. It plunges in the water, and traverses the lakes, in search of water-forks and their eggs. The only enemy it has in the desert and cold countries, which it inhabits, is the glutton.

THE GLUTTON.

EXCLUSIVE of the tail, which measures about a foot, the length of the Glutton is three feet. The top of the head, the whole of the back, the muzzle, and the feet, are of a blackish brown colour. The tail is of the colour of the

* See Vol. I. p. 342.

and the sides are dusky. The body is thick, and its short. It is nearly of the size of a ram, but as thick its head is short, its eyes small, its teeth very strong; is exceedingly beautiful, and much valued. It is



in Lapland, and all the neighbouring countries of Northern Sea, as well in Europe and America as in

It is called *Carcajou*, in Canada, and the northern parts of America.*

The legs of the Glutton are not formed for running; it is very slow; but its cunning supplies this deficiency: it waits the arrival of its prey in ambush; and, in order to do it with greater security, it climbs up a tree, carrying with it a quantity of a kind of moss to which the deer is partial. This it throws down to the deer, and if once the deer stops, the Glutton darts down, and fastens itself firmly with its claws and teeth, that all the efforts of the animal cannot remove it. The poor animal in vain flies to its utmost speed; in vain it rubs itself against trees and other objects; all is useless: fastened on its back or the Glutton still persists in tormenting it, by digging up the flesh and sucking its blood, till the animal, faint with the loss of blood, falls; then the Glutton devours it piece-meal, with the utmost avidity and obstinate

I have noticed the animal here referred to in vol. . p. 362, under the name of Wolverine. Many able naturalists have considered these animals as the same; but Richardson observes that their habits are dissimilar.

cruelty. It is inconceivable, what a length of time together the Glutton will eat, and what a quantity of flesh it will devour at a single meal.

From this quality, the Glutton has obtained the name of the *Quadruped Vulture*. It is more insatiable, and commits greater depredations, than the wolf; it would destroy every animal, if it had sufficient agility; but the only animal it is capable of taking on foot is the beaver, which it easily destroys: it even often attacks that animal in its hole, and devours both it and its young, if they do not get to the water in time; for then the beaver escapes its enemy by swimming, and the Glutton stops its pursuit to feed upon the fish. When it is deprived of any living food, it goes in search of carcasses, scratches open graves, and devours the flesh of dead bodies to the very bone.

Although this animal is subtile, and uses every art to conquer other animals, it seems to have not the least instinct for its own preservation. It suffers the human species to approach it without the least appearance of fear. This indifference, which seems to show its imbecility, is occasioned, perhaps, by a different cause; it is certain that the Glutton is not a stupid animal, since it readily finds means to satisfy its perpetual and almost immediate appetite; it does not want for courage, since it attacks every animal indifferently that comes in its way, and does not fly at the sight of man, nor even show the least mark of spontaneous fear. When attacked, it resists stoutly, is able to break a trap in pieces, or tear the stock from a gun. If, therefore, it is deficient in a proper care for its own safety, it does not arise from an indifference for its preservation, but only from its habit of security, as it is a native of almost every desert country, where it seldom meets with any of the human species.

As the isatis is not so strong, but much swifter than

it serves as a purveyor to the latter, which follows in its pursuit of animals, and often deprives it of its prey before it has devoured it, or, at least, partakes of the prey before the moment the Glutton approaches, the Isatis, to its destruction itself, leaves what remains, for the Glutton to feed on. Both these animals burrow in the ground; every other habit they are different. The Isatis lives in flocks, while the Glutton moves alone, or sometimes with its female: they are often found together in their burrows. The fiercest dogs are fearful of attack by the Glutton, which defends itself with its teeth and claws, and often mortally wounds them.

The flesh of the Glutton, like that of every other voracious animal, is very bad food. It is only hunted after for its skin, which makes an exceedingly good and beautiful garment, inferior to the sable and black fox. It is also said that when properly chosen and well dressed, it has a more excellent gloss than any other skin, and even has the appearance of a rich damask. The Kamtschadales esteem it highly, that they say the heavenly beings wear garments of no other fur. The women ornament their hair with the claws and white paws.

THE LEMMING RAT,

OR LAPLAND MARMOT,

The shape of a mouse, but has a shorter tail: its body is about the length of five inches, covered with fine hair of various colours. Those of Norway are of the size of a rat; but those of Lapland are scarcely as large as the former. The former are variegated with black and tawny on the upper parts; the sides of the head and the under parts are white. The legs are grayish, and the under parts of the body of a dull white. In some there are many red

hairs about the mouth resembling whiskers, six of which are longer and redder than the rest. The mouth is small, and the upper lip is divided like the squirrel's. The remains of the food in the throat of this animal incline to imagine it ruminates. The head is large, short, and thick; the neck short; and the body thick. The eyes are small and black; the ears round, and inclining towards the neck; the legs before are short, and those behind long, which gives it a greater degree of swiftness; the feet are clothed with hair, and armed with five very sharp and crooked claws; the middle claw is very long, and the fifth is like a little finger, or the spur of a cock, sometimes placed very high up the leg. This animal, therefore, whose legs are very short, runs very swift. It generally inhabits the mountains of Norway and Lapland, but descends in such great numbers in some years, and in some seasons, that the inhabitants look on their arrival as a terrible scourge from which there is no possibility of deliverance. They move, for the most part, in a square, marching forward by night, and lying still by day. Thus, like an animal torrent, they are often seen more than a mile broad covering the ground, and that so thick, that the hinder touches its leader. It is in vain that the inhabitants try to stop or attempt to stop their progress; they still keep on forward; and though thousands are destroyed, they are seen to succeed and make their destruction incalculable: they generally move in lines, which are about ten feet from each other, and exactly parallel: their motions always directed from the north-west to the south-east, and regularly conducted from the beginning. When their motions are turned, nothing can stop them directly forward, impelled by some strange power. From the time they at first set out, they never stop treating. If a lake or a river happens to intersect

They all together take the water and swim over a deep well, or a torrent, does not turn them out in a straight-lined direction; they boldly plunge into it, or leap down the well, and are sometimes seen to appear on the other side. If they are interrupted by a rock in the river while they are swimming, they do not stop to swim round it, but mount directly up it, and the boatmen, who know how vain resistance is, calmly suffer the living torrent to pass over, and are without farther damage. If they meet with a field of hay or corn which interrupts their passage, instead of going over it, they gnaw their way through; if stopped by a house in their course, if they cannot break through it, they continue there till they die. It is happened, that they eat nothing that is prepared for human use; they never enter a house to destroy the furniture, but are contented with eating every root and herb that they meet. If they happen to pass through a village, they destroy it in a very short time, and give it an appearance of being burnt up and strewed with ashes. If interrupted in their course, and a man should attempt to venture to attack one of them, the little animal is not intimidated by the disparity of strength, but rushes up at its opponent, and barking somewhat like a dog, wherever it fastens it does not easily quit its hold; if the leader is found out of its line, which it does by barking as it can, and be separated from the rest of the colony, it sets up a plaintive cry, different from that of the others, as some say, gives itself a voluntary death, by hanging itself on the fork of a tree.

Any so numerous and destructive would quickly destroy the countries where they appear utterly uninhabitable. It is not fortunately happened that the same rapacity has led them to destroy the labours of mankind, at

last impels them to destroy each other. After committing incredible devastation, they are at last seen to separate into two armies, opposed with deadly hatred along the coasts of the larger lakes and rivers. The Laplanders, who observe them thus drawn up to fight, instead of considering their mutual animosity as a happy riddance of a most dreadful pest, form ominous prognostics from the manner of their engagements: they consider their combats as a presage of war, and expect an invasion from the Russians or Swedes, as the side next those kingdoms happens to conquer. The two divisions, however, continue their engagements and animosity until one part overcomes the other: from that time they utterly disappear, nor is it well known what becomes of either the conquerors or the conquered. Some suppose, that they rush headlong into the sea; others, that they kill themselves, as some are found hanging on the forked branches of trees; and others, that they are destroyed by the young spring herbage. But the most probable opinion is, that having devoured the vegetable productions of the country, and having nothing more to subsist on, they then fall to devouring each other, and having habituated themselves to that kind of food, continue it. However this be, they are often found dead by thousands, and their carcasses have been known to infect the air for several miles round, so as to produce very malignant disorders: they also seem to infect the plants they have gnawed, for the cattle often die that afterwards feed in the places where they passed. The inhabitants have an opinion, as they do not know whence such numbers proceed, that they fall with the rain.

Five or six young ones are produced at each litter, and the female brings forth several times in the course of a year. They sometimes litter while emigrating, and they

been seen carrying some of their offspring in their mouths, and others on their backs.

For the rest, the male is generally larger and more richly spotted than the female: they go in droves through the water; but no sooner does a storm of wind arise, they are all drowned. The flesh of the Lemmings is good food, and their skin, although covered with a beautiful fur, is of too little consistence to be service-

AMERICAN LEMMINGS.

The four Lemmings described in the succeeding pages, of them closely resemble the Lemmings of the old continent, and may be described as their American representatives. Thus the TAWNY LEMMING approaches the RED LEMMING; BACK'S LEMMING represents the GRAY LEMMING; and the GREENLAND LEMMING is allied to the RINGED LEMMING of Siberia.

TAWNY LEMMING.

This animal was found by Mr. Drummond, inhabiting pine forests in latitude 56°, but he could not learn any thing of its habits. From the great similarity of its form and strong resemblance in the shape of its claws to the European Lemming, we may infer that its habits do not differ from those of that animal. It is of the size of the Red Lemming. The fur is a reddish orange colour, in places mixed with black.—*Richardson.*

BACK'S LEMMING.

This animal was discovered by Capt. Back in latitude 65°, on St. Franklin's first expedition. On the second expedition specimens were obtained on the shores of Great Slave Lake. Here it was found in the spring, as soon as

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ground began to thaw, burrowing under the moss. In the winter it travels under the snow, in a furrow cut to the depth of two inches and a half in the mossy turf. These hollow ways cross each other at various angles, but occasionally run to a considerable distance in a straight direction. From their smoothness, it was evident that they were not merely worn by the feet, but actually cut by the teeth. The food of this Lemming seems to consist entirely of vegetable matters. It inhabits its woody spots. The colour resembles that of the Tawny Lemming.—*Richardson.*

HUDSON'S BAY LEMMING.

THIS curious animal was first described by Foster, and afterwards more fully by Pallas. We did not meet with it in the interior of America, and I believe it has hitherto been found only near the sea. It inhabits Labrador, Hudson's Straits, and the coast from Churchill to the extremity of Melville peninsula, as well as the islands of the Polar Sea visited by Capt. Parry. Its habits are still imperfectly known. In summer, according to Hearne, it burrows under stones, in dry ridges; and Capt. Sabine informs us that in winter it resides in a nest of moss, on the surface of the ground, rarely going abroad. The former author also acquaints us that it is so easily tamed, that if taken when full grown, it will in a day or two be perfectly reconciled, very fond of being handled, and will creep of its own accord into its master's neck or bosom.—*Rich*

GREENLAND LEMMING.

THIS animal was first described and the specific name fixed by Dr. Traile, from an individual procured by Scoresby on the east coast of Greenland; and on Franklin's second expedition a considerable

at Repulse Bay. They were found in similar situation to the Hudson's Bay Lemming, and were considered the females of that species, by the officers of the expedition, and as such noticed in their journals. A number of them being put into a cage, fought until they killed each other.—*Richardson*.

THE SEAL.

The Seal has its head round, like that of the human; its snout is broad, like the otter's; the eyes large and deep-set; little or no external signs of ears, only two small passages in the sides of the head; it has whiskers on its mouth, and its teeth somewhat resemble those of the dog. The tongue is forked at the point; the body, hands, and feet, covered with a short and bristly hair; it has no web between its two feet, or membranes, like hands, with five toes, but is provided by as many claws: these membranes, which give the appearance of hands, are only larger and turned outwards, as if designed to unite with its very short tail, which they accompany on both sides. The body is thick, and the neck is joined to it, whence the animal tapers from the neck to the tail like a fish. This amphibious creature is of a very different nature from that of our domestic animals, yet seems susceptible of a kind of education, and is fed by putting it often in water: it is taught to obey commands with its head and its voice; it is accustomed to the call of its keeper, and gives many other signs of intelligence and docility.

The sensations of the Seal are as perfect, and its sagacity as those of any other quadruped: both the one and the other are strongly marked by its docility, its social habits, its strong instinct for its female, its great attention to its young, and by its voice, which is more ex-

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pressive and more modulated than in other animals: its body is likewise firm and large: it is also strong, and armed with very sharp teeth and claws, and has many particular and singular advantages over any other animals we can compare with it; it endures both heat and cold, and feeds indifferently on grass, flesh, or fish; it can equally live on ice, land, or in the water. This animal and the walrus are the only quadrupeds which deserve the name of *amphibious*, or which have the *foramen ovale* open, consequently they are the only animals of that class which can exist without respiration, and to which the watery element is as agreeable as that of the air.

But these advantages, which are very great, are counterbalanced by imperfections still greater: they may be said to be deprived of the use of their fore legs, or membranes they are almost entirely shut up within its body, while nothing appears but the extremity of them, which are furnished with five toes, scarcely moveable, being united together by a very strong membrane, so that they might more properly be called fins than feet, as they are more adapted for the purpose of swimming than walking, the hind feet, being turned backwards, are entirely useless upon so that when the animal is obliged to move, it drags forward like a reptile, and with an effort more painful; it cannot twist itself about like a serpent, but lies lump on the earth, and by grasping whatever it finds, reach, drags itself up the steepest shores, rocks, or of ice: by this method it moves with such a swiftness, that a man cannot overtake it; it makes towards the sea, and often, though wounded, escapes the pursuit of the hunter.

Seals are social animals, and generally found in great numbers in the places they frequent: their natural habitation is the northern, but they are also met in the temperate and even hot countries; for they are seen on

the seas in the universe. The species alone vary, and, according to the difference of climates, colour, and even its shape.

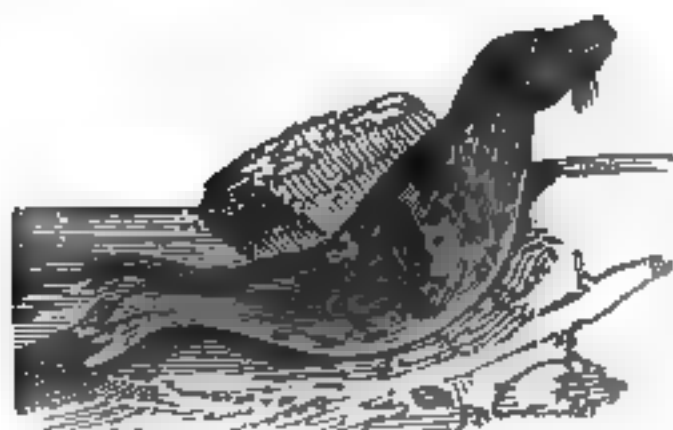
Calves of these animals bring forth in winter, and are found upon some sand-bank, rock, or small island, at a distance from the continent. When they suckle they sit upon their hinder legs, and they continue their dam for twelve or fifteen days; after which they let them down to the water, accustoms them to get their food by their own industry. As each calf exceeds above three or four, so the animal's milk is much divided, and the education of her little ones is completed. The young particularly distinguish their mother's voice among the numerous bleating of the others, and are perfectly obedient to her call. We have ascertained the time of the female's gestation; we judge from the time of their growth, the length of their lives, and the size of the animals, it will appear to us that the time also that intervenes, from their birth to attain their full growth, being many years, that their lives must also be very long. I am of opinion that these animals live upwards of a hundred years; that cetaceous animals in general live much longer than quadrupeds; and as the Seal fills up the chasm between the whale and the other, it must participate of the qualities of the first, and consequently live much longer than

the whale. The Seal may be compared to the barking dog. When young, they have a shrill note, like the mewling of a cat: those that are taken from their dams mew continually, and very often die because they do not take the food that is offered them. These animals in general are of a courageous nature. It is reported that instead of being terrified at thunder and light-

ning, they are rather delighted, generally come on shore in tempests and storms, and even quit their icy abodes to avoid the shock of the tempestuous waves : at such times, they sport in great numbers along the shore ; the tremendous conflict seems to divert them, and the heavy rains that fall appear to enliven them : they have naturally a disagreeable scent, and when there are great numbers together, it is smelt at a great distance. It often happens, that when pursued, they drop their excrements, which are of a yellow colour, and of a very abominable scent. As they have a prodigious quantity of blood, and are also greatly overloaded with fat, they are consequently of a very dull and heavy nature ; they usually sleep soundly, and are fond of taking their repose on flakes of ice, or on the sides of rocks, at which time the hunters approach very near without disturbing them, and this is the usual method of taking them : they are very seldom killed with fire arms ; for, as they do not immediately die, even if they are shot in the head, they plunge into the sea, and are entirely lost to the hunter ; the general method therefore is, to surprise them when asleep, and knock them on the head. “ They are not easily killed, and are a long time dying (says a modern traveller), for although they are mortally wounded, and their blood nearly exhausted, and nearly stripped of their skins, yet they still continue alive ; indeed, it is a disagreeable sight to see these animals wounded and skinned, wallowing and rolling about in their blood in the greatest agonies. These remarks were made on the animals we killed, which were about eight feet long, for, after they were skinned, and even deprived of a great part of their fat, yet they attempted to bite their butchers, notwithstanding they had given them many powerful blows over the head and nose. One of them even seized a lance which was presented to it, with as much eagerness as if it had not been wounded ; after which

d it through the heart and liver, whence as much
ed as is contained in a young ox."

THE COMMON SEAL.



mals differ considerably in size, being found from
re feet long; they also vary in their colours;
g black, others white, some spotted, and many
their chief food consists of fish, which they are
expert in pursuing and catching. In those
re herrings are seen in shoals, the Seals de-
by thousands; and when these retire, they are
hunt after fish that are stronger, and more ca-
ading pursuit. They are taken for the sake of
and the oil their fat yields. The Seal is capa-
g tamed, and is said to be fond of music. The
believe them to be the offspring of Pharaoh and
ho were converted into Seals on their being
ed in the Red Sea. Were the race of this
cease to exist, the Greenlander would be ren-
st unable to inhabit his rigid clime, as it is
from them that he derives the necessaries of
e is scarcely a part of them which is not of the
ity to him.

ner in which a Greenlander catches a Seal is as
he instant a Seal is seen by a Greenlander, he

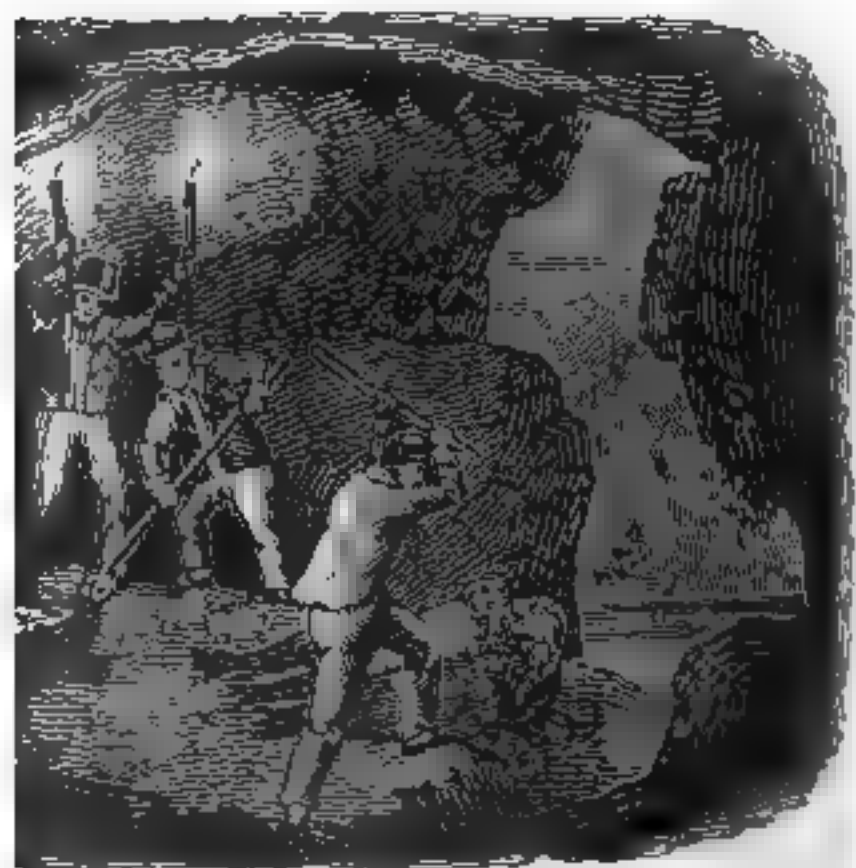
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seal along the surface of the water to his companions, who telegraph the signal as are engaged in the chase; and it is seldom their prey to escape. The seal is impetuous and having once discovered his partners, he rushes at length so short breasted by his side and in different directions, to confound them, one of them paddles silently in his rear, using the paddle with one hand, while with the other he is getting in order; and having advanced near enough, he is sure to measure the distance with accuracy, he



throws the dart and never fails to strike. The seal is often killed and wounded, dives in the greatest terror being attached to the dart by a leathern line, forced up again and despatched. European and American ships are sent to

to procure the oil and skins of Seals, which is of importance in commerce and manufactures. The mode of killing the Seal is to go to the caves on which herds of seals occasionally enter. When the clubs are properly placed they raise a simultaneous shout, and the affrighted animals rush out in great numbers and are despatched with wonderful quickness by a blow on the nose, struck with a club. They die almost instantaneously of life when struck or wounded on any part of the body.



The best situation for *sealing* in the Arctic Seas is generally to be in the vicinity of Jan Mayen's Island. The best season the months of March and April. As the hunters arrive at the ice, the sealers immediately rush forward with clubs, and stun them by a single blow on the nose, which mode enables one person to kill a great number of seals; when they are seen on the ice they are hunted by means of boats,

each boat pursuing a different herd; should the seals attempt to leave the ice before the arrival of the boat, the sealers shout as loudly as possible, and produce much amazement in the seals by this uproar as to delay their flight till the boat arrives and the work of destruction is begun. Where the Seals are very numerous the sealers stop not to flay those they have killed, but set off to another ice-field to kill more, merely leaving one man behind to take off the skins and fat. When the condition of the ice forbids the use of boats, the hunter is obliged to pursue the seals over it, jumping from piece to piece, and they succeed in taking one, which he then stops to flay and *flense*, or to remove the skin and fat. This sometimes is a horrible business, since many of the seals are merely stunned, and occasionally recover after they have been flayed and flensed. In this condition, too shockingly mangled for description, they have been seen to make battle and even to swim off.

“The number of seals destroyed in a single season by the regular Sealers may well excite surprise; one ship has been known to obtain a cargo of four or five thousand skins, and upwards of a hundred tons of oil. Whale ships have accidentally fallen in with and secured two or three thousand of these animals during the month of April. The sealing business is, however, very hazardous when conducted on the borders of the Spitzbergen ice. Many ships with all their crews are lost by the sudden and tremendous storms occurring in those seas, where the dangers are vastly multiplied by the driving of immense bodies of ice. In one storm that occurred in the year 1774, no less than five seal ships were destroyed in a few hours, and six hundred valuable seamen perished.”

THE GREAT SEAL.

which grows to the size of ten or twelve feet, is Greenland Seas, and on the northern extremity of the continent. It most commonly rests upon floating ice, if it comes on fixed ice, it is through holes near the edge of the field. It is covered with black hair, which is almost entirely shed, leaving the animal smooth.

This Seal resembles the common Seal in habits and appearance, but may be distinguished from it by its beard-like whiskers. They swim slowly; their stupidity and watchfulness render it difficult to approach, so that but little is known of their peculiarities. In some seasons they are very fat; their flesh is very similar to veal.—*Godman*.

THE HARP SEAL.

When full grown is almost entirely of a white colour, having a black figure on its back like two half moons. The Seal varies in its colour like this, and the Esquimaux change its name with these variations of colour. It is common in the Greenland Seas, where it frequents deep bays. It is also found near the shores of the continent.

This Seal is very incautious, and shows much of the same disposition of the common Seal. It is often swimming in various attitudes, and whisking its tail for sport. This species lives in great herds apparently under direction of a leader, who maintains the safety of the whole. The Greenlanders hunt them on shore by surrounding and pursuing them as they come to the surface to breathe. It yields a large quantity of blubber, which yields a

greater proportion of pure oil than is obtained from other Seal.—*Godman.*

THE FETID SEAL.

THIS Seal, when full grown, is about four feet and a half long, and its skin is covered with a dingy white hair, composed of stiff bristles, and soft hair. The old animal is remarkably fetid, and this nauseous odour taints the skin and fat equally. The Fetid Seal frequents the fens and near frozen lands, and never relinquishes its haunts in old. It has holes in the ice for the purpose of fishing, and is solitary in its habits, pairs being rarely seen together. It is not a timid animal, and is occasionally preyed upon by the eagle, being taken while asleep upon the ice. *Godman.*

THE URSINE SEAL.



THE males of this species are, in general, about eight feet long, but the females are much smaller. Their bodies are very thick, and the colour of the hair is commonly black, but that of the old ones is tipped with gray. The females are of an ash-coloured hue. The nose projects like that of a pug dog, and the eyes are large and prominent. The voice varies on different occasions; thus, when spotted

in native rocks, they low like a cow ; when engaged
 le, they growl hideously ; after a defeat or receiving
 ad, they mew like a cat ; and the note of triumph
 victory somewhat resembles the chirping of a crick-
 hese animals are chiefly found on the islands in the
 y of Kamtschatka, from June to September ; after
 they remove, some to the Asiatic, and some to the
 can coast. On Behring's Island they are so numer-
 almost to cover the whole shore ; but it is a singu-
 t that they only frequent that part of it which lies
 s Kamtschatka.

ne Seals live in families, each male being surround-
 from eight to fifty females, whom he watches with
 ost vigilant jealousy, and treats in the most tyranni-
 manner. They are of an irritable disposition, and
 frequent battles. So tenacious are they of life that
 will live a fortnight after receiving wounds which
 be speedily mortal to other animals.

• THE BOTTLE-NOSED SEAL.

variety of the Seal is usually found in the seas around
 Zealand, the island of Juan Fernandez, and the Falk-
 lands. The male of this species measures from fif-
 o twenty feet in length, and differs from the female
 ing a large snout, which projects five or six inches
 d the extremity of the upper jaw, and which, when
 ed, it inflates, so as to give to it the appearance of
 hed or hooked nose. The quantity of blubber con-
 between the skin and the flesh is so great, it being
 at a foot in depth in the largest, that the animal, when
 tion, looks like an immense skin filled with oil. This
 ity of fat probably contributes to render the Bottle-
 Seal of so lethargic a disposition, that it is not ea-
 be compelled to move, and, consequently, is easily

killed. It divides its time almost equally between the land and sea, and lives in herds, each of which seems to be under the direction of a large male, which seamen term the Bashaw, from the circumstance of his driving away females from the other males, and appropriating them to himself. At a distance from each herd, some of the males are placed as sentinels, and by them the alarm is loudly given in case of danger.

THE SEA LION, OR HOODED SEAL.*

To the species of Seals, as above described, we may, with great propriety, add another animal, described in Anson's Voyages, by the name of the *Sea Lion*. They are found in great numbers on the coasts of the South Sea. The Sea Lion resembles the sea calf, which is very common in the same latitude; but they are much larger than any of the former, being from eleven to eighteen feet long, and from eight to eleven in circumference. It is so fat, that when the skin is taken off, the blubber is about a foot thick all round the body. About ninety gallons of oil is drawn from one of these animals; they are at the same time very full of blood, and when deeply wounded in many parts of the body, the blood spouts out with amazing power: the throat of one of these animals being cut, it afforded two barrels of blood, besides what then remained in its body. Its skin is covered with a short hair of a brownish colour, but blackish on the tail and feet: their toes are united by a

* The Hooded Seal is most commonly found on the shores of Greenland, of Davis' Straits, and occasionally of Newfoundland. It is distinguished by the singular appendage it has on its head, formed by an extension of the skin of the front which communicates with the nostrils, and can be inflated, or elevated and depressed, at the pleasure of the animal. It is covered with short black hairs. The use of this hood has not been ascertained.—Godman.

membrane which does not reach to their extremity ; each of the toes is known by a claw. The Sea Lion differs from the seal, not only in its size and bulk, but also in some other characters ; the male has a kind of thick comb or skin hanging from the end of the upper jaw, about five or six inches long. This character is not seen in the female. The strongest males collect together a flock of females, and hinder the others from approaching them. These animals are truly amphibious ; they remain all the summer in the sea, and go on shore in the winter, at which season the females bring forth their young, but never more than one or two at a litter, which they suckle, like the seal. The Sea Lions, while they are on shore, feed on the grass on the side of the sea : they are of a very heavy and drowsy nature, and delight to sleep in the mire : but they are very wary, and at those times commonly fix some sentinels near the place where they sleep ; and it is said, that these sentinels are very careful to awake them when any danger is near. Their voices are very shrill, and of various tones ; sometimes grunting like hogs, and sometimes neighing like horses. The males often fight with each other, when they wound one another desperately with their teeth. The flesh of these animals is not disagreeable to eat, particularly the tongue, which is as good as that of the seal. They are very easily killed, as they cannot defend themselves, nor fly from their enemies : they are so exceedingly heavy, that they move with great difficulty, and turn themselves about with still greater. Those that hunt them have only to guard against their teeth, which are very strong, and which they make use of with powerful effect against those who approach within their reach. By comparing other observations and accounts, the Sea Lion of South America appears to be nearly the same as that found on the northern coast of the same continent.

The great seal of the Canadian Sea, spoken of by Davis by the name of the sea wolf, and which he distinguishes from the common sea calf, might possibly be the same as the Sea Lion we are speaking of. Their young, says the author, are larger and longer than our largest hog.

Commodore Byron was unexpectedly attacked by one of these creatures on the Falkland Islands, and extricated himself from the impending danger with great difficulty.



The sailors had many battles with the Sea Lion, the killing one of which was frequently an hour's work for six men; one of them almost tore to pieces the Commodore's mast-dog, by a single bite.

WALRUS, MORSE, OR SEA COW.*



Sea Cow, or Sea Horse, by which the Walrus is generally known, has been very wrongly applied to an animal which it denotes has not the least resemblance to the land animals of that name: the denomination, which others have given it, is much more appropriate, as it is founded on a singular and very appropriate resemblance. The Walrus, like the elephant, has two large tusks, weighing from ten to thirty pounds each, in the upper jaw; its head also is formed, and its trunk, like that of the elephant, and would resemble it in that part if it had a trunk; but the place of that instrument, which serves the place of an arm and hand, and has real use of. These members, like those of the elephant, are within the skin, so that nothing appears like hands and feet: its body is long and tapers towards the neck: the whole body is covered with short hair; the toes, and the hands, or feet, are enclosed in a membrane, and terminated by short and sharp claws. On each side of the mouth are the form of whiskers: its tongue is hollow.

The Sea Cow has also been applied to the *Lamantin*.

ed, the concha of the ears are wanting, &c. ; so that excepting the two great tusks, and the cutting teeth, it is deficient in above and below, the Walrus in every particular perfectly resembles the seal : it is only larger and stronger, being commonly from twelve to sixteen feet in length, and eight or nine in circumference, sometimes reaching eighteen feet in length, with a proportionable girth ; whereas the largest seals are no more than seven or eight feet. The Walruses also are generally seen to frequent the same places as the seals are known to reside in, and are almost always found together. They have the same habitudes in every respect, excepting there are fewer varieties of the Morse than the seal : they likewise are more attached to one particular climate, and are rarely found except in the northern seas.

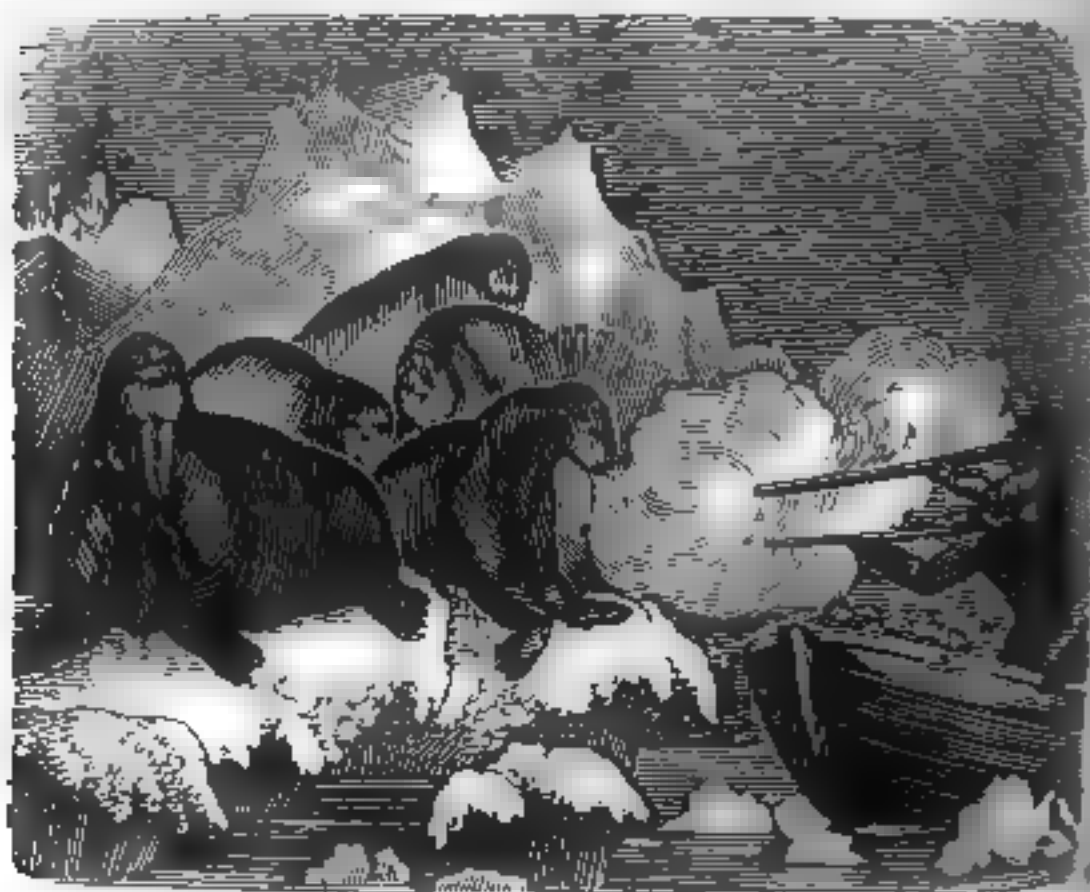
“There was formerly,” says Zordrager, “great plenty of Morses and seals in the bays of Horisont and Klock, but at present there are very few. Both these animals go to the water in the summer, and resort to the neighbouring plains, where there are flocks of them from eighty to two hundred, particularly Morses, which will remain there several days together, till hunger obliges them to return to the sea. This animal externally resembles the seal, but it is stronger and much larger : like that, it has five toes on each paw, but its claws are shorter, and its head thicker and rounder ; its skin is thick, wrinkled, and covered with very short hair of different colours ; its upper jaw is armed with two teeth about half an ell or an ell in length ; these tusks, which are hollow at the root, become larger as the animal grows older. Some of them are found to have lost one, the other being torn out in fighting with each other or perhaps fallen out through age. This ivory generally brings a greater price than that of the elephant, as it is a more compact and harder substance. The mouth of the

like that of the ox, and furnished with hairs which w, pointed, and about the thickness of a straw. e mouth are two nostrils, through which the ani- ts the water like a whale. There are a great f Morses towards Spitzbergen, and the profit that from their teeth and fat fully repays the trouble, is almost as much valued as that produced from . When the hunter is near one of these animals ter, or on the ice, he darts a very strong harpoon ch, though made expressly for the purpose, often its hard and thick skin ; but if it has penetrated ey haul the animal towards the boat, and kill it arp and strong lance. The Morse is generally han the ox, and as difficult to pursue as the e skin of which is more easily pierced. For this ey always endeavour to wound it in the most ten- and aim at its eyes : the animal, obliged by this turn its head, exposes its breast to the hunter, ediate strikes very forcibly in that part, and lance out again as quick as possible, for fear it the lance with its teeth, and wound those that

Formerly, before these animals were so greatly d, they advanced so far on shore, that when it water, they were at a great distance from the sea ; v water, being at a still greater, the hunters e-ached them and killed great numbers. The hun-der to cut off their retreat to the sea, and after killed several, made a kind of barrier of their es, and in this manner often killed three or four n a season. The prodigious quantity of bones er the shores, sufficiently prove how numerous mals were in former times. When they are they become extremely furious, often biting the pieces with their teeth, or tearing them out of

the hands of their enemies: and when at last they are strongly engaged, they put their head betwixt their paws, or fins, and in this manner roll into the sea. When there is a great number together, they are so bold as to attack the boats that pursue them, bite them with their teeth, and exert all their strength to overturn them."

Captain Cook saw a herd of them floating on an ice island off the northern coasts of the American continent. "They lie (says he) in herds of many hundreds, upon the ice, huddling over one another like swine; and roar or bray so loud, that in the night, or in foggy weather, they gave us notice of the vicinity of the ice before we could see it. We never found the whole herd asleep, some being always on the watch. These, at the approach of the boat, would wake those next to them; and the alarm being thus gradually communicated, the whole herd would be awaked. Be-



they were seldom in a hurry to get away, till after they had been once fired at. They then would tumble over one another into the sea, in the utmost confusion. And if

not, on the first discharge, kill those we fired at, we really lost them, though mortally wounded. Vast numbers of these animals would follow and come close up to the us; but the flash of a musket in the pan, or even the ringing of a musket at them, would send them down in instant. The female Walrus will defend her offspring to the very last, and at the expense of her own life, whether in the water or upon the ice. Nor will the young one quit its dam, though she be dead; so that, if one be killed, there is a certain prey."

We find the Walrus can live, at least for some time, in the coldest climate. We do not know how long it goes without food, but if we judge by the time of its growth, we must suppose it to be upwards of nine months. It does not continue in the water for a long time together, but is obliged to go on shore to suckle its young, and for other occasions. When they meet with a steep shore, or a mass of ice to climb up, they make use of their tusks to pry, and their feet to drag along the heavy mass of their ice. They are said to feed upon the shell-fish which are at the bottom of the sea, and to grub them up with their tusks. Others say, that they live on the broad leaves of certain vegetable which grows in the sea, and that they eat neither flesh nor fish. But I imagine all these opinions are but a weak foundation; and there is reason to think, that the Walrus, like the seal, lives on prey, especially fish and other fish; for it does not eat at all when upon land and it is chiefly hunger which obliges it to return to the water.

The fat of the Walrus furnishes from one to two barrels and the skin is capable of being manufactured into strong and elastic leather.

THE MANATI.

THIS animal may be indiscriminately called the last or first of fishes. It cannot be called a quadruped, can it entirely be termed a fish: it partakes of both of the fish by its two feet or hands; but the hind legs which are almost wholly concealed in the body of the seal and morse, are entirely wanting in the Manati. Instead of two short feet and a small narrow tail is placed in a horizontal direction in the morse, the Manati has only a thick tail, spread out broad like a fan. It seems to be the first author who has given any sort of description of the Manati; he says, "it is a very clumsy animal, the head of which is thicker than an ox, the eyes small, and the two feet or hands are near the head, for the purpose of swimming. It has no scales, but is covered with a skin, or rather a thick hide with a few hairs or bristles: it is a peaceable animal, and feeds upon the herbage by the river sides, without entering the water, swimming on the surface of it to seek food. The hunters practise the following method of catching the Manati; they row themselves in a boat or raft near the animal as possible, and dart a very strong lance at it, to the end of which a very long cord is fastened. The Manati feeling itself wounded, instantly swims and plunges to the bottom: but the cord which holds the animal has a cork or piece of wood fastened to the end, which serves as a buoy; when the animal begins to grow weak through the loss of blood, the cord is then wound up, and the animal drawn to the arm's length of the boat, where they dispatch it in a few strokes of the oar or lance. It is so very heavy, that it is a sufficient load for two oxen to draw; its flesh is slow in eating, and is eaten rather as beef than as fish.

se animals measure more than fifteen feet in length : feet in breadth : the body becomes narrower towards il, and then spreads gradually broadertowards the end. e Spaniards, adds Oviedo, give the appellation of to the feet of quadrupeds, and as this animal nly fore-feet, they have given it the name of *Manati*, n animal with hands. The female has breasts placed rd like those of a woman, and she generally brings two young ones at a time, which she suckles. The and fat of this animal (says M. de Condamine) have a resemblance to veal. It is not, properly speaking, ibious, since it never entirely leaves the water, having two flat fins, close to the head, about sixteen inches and which serves the animal instead of arms and hands. y raises its head out of the water to feed on the her- by the sea side. The eyes of this animal have no pro- n to the size of its body ; the orifice of its ears is ess, and only seems like a hole made by a pin. The ti is not particular to the Amazonian river ; for it is ss common in the Oroonoko : it is found also, though frequently, in the Oyapoc, and many other rivers e environs of Cayenne, and the coast of Guiana, and bly in other parts."

e Manati species, however, is not confined to the and rivers of the New World, but is found also in of Africa.

the preceding description given by Buffon of this an- is too vague to be satisfactory, it may be proper to en- somewhat on the different species.

THE WHALE-TAILED MORSE.

variety of the Morse tribe, which is also called the ati, chiefly inhabits that part of the North Pacific

which lies between Kamtschatka and America.' It lives in families, which unite and form immense droves. And the individuals are exceedingly attached to each other, particularly the males to their females; nothing can terrify or compel the latter to abandon the former. The Manati is sometimes twenty-eight feet long, and weighs as much as eight thousand pounds. It has a small head, double lips, and the mouth is filled with white tubulous bristles, near the junction of the jaws, which prevent the food from escaping out of the mouth with the water. The blubber and the skin are the parts which render this creature an object of pursuit to mankind.

THE ROUND-TAILED MANATI.

THIS animal frequents most of the great African rivers, from Senegal to the Cape of Good Hope, and also many of the rivers on the eastern shore of South America. It is often seen in the Amazons nearly a thousand leagues from its mouth. It prefers shallow waters near low land, and is a frolicsome creature, frequently leaping into the air to great heights. The natives of America are said frequently to tame it, and we are told that it delights in music. The female, when struck by the harpoon, seems insensible to her own sufferings, and only anxious to protect her young one by taking it under her fins or feet. The Round-tailed Manati is about six feet in length, and three or four in circumference. Its flesh is a white, well tasted, and salubrious food. When the thicker parts of the skin are cut into slices and dried, they become exceedingly tough, and form good whips. Of the thinner parts, which have more pliability, the Indians make thongs to fasten together the sides of their canoes.

THE SEA-APE MANATI.

was seen, by Mr. Steller, off the coast of
was called by him the Sea-Ape. Pennant
ing the Manati tribe ; but, as it has a head
some measure that of a dog, with sharp up-
Bingley is disposed to class it with the seals.
Sea-Ape was given to it in consequence of
tricks which it played. It swam round and
up, stood erect for a considerable time with
its body out of the water, darted backward
peatedly, under the ship, and brought up in
a plant, like the bottle gourd, which it toss-
and played innumerable antics with.

CHAP. XXI.

Monkeys...The Orang-outang...The Pigmy...The Gibbon or Long-armed Ape....The Magot....The Baboon....The Maimon....The Mandrill....The Pig-tailed Baboon....The Pig-faced Baboon...The Bonnetted Monkey...The Dog-faced Baboon....The Ursine Baboon....The Wanderoo and Loando....The Macaque and Egret....The Patas...The Marmoset...The Mangabey....The Mona....The Callitrix....The Mustache....The Talapoin....The Douc....American Monkeys....The Warine and Alouato....The Coaita....The Cuchin Monkey....The Sai, or Weeper....The Siamang, Orange Monkey....The Saki....The Tamarin....The Miti....The Marikina....The Pinch....The Mico.

MONKEYS IN GENERAL.

BEFORE we proceed to speak of the several kinds of Monkeys, we cannot do better than offer the following observations upon the Monkey tribe in general, from the account of the Tower Menagerie.

“In addition to the hands on the posterior as well as anterior members, with long and flexible fingers and opposable thumbs, which constitute the primary characters of the order, the Monkey tribe in general is distinguished by the following peculiarities. Their incisor teeth are invariably four in each jaw, and their molars, like man, are flat, and surmounted by blunted tubercles. The latter are five in number on each side of either the Monkeys of the Old Continent, and in only one distinct tribe belonging to the New; but most of the American species are furnished with a sixth. They vary considerably in size, from a trifling project to the remaining teeth to a long and powerful

filling those of the most formidable Carnivora; and in this structure it necessarily follows that a vacant space is left between the incisors and the canines of the upper jaw, and between the canines and the molars of the lower, for the reception and lodgement of those organs when the mouth is closed. The nails of all their fingers, as well as those of the thumbs, are invariably flat and rounded.

In almost every other point they are subject to infinite variations of form and structure. The shape of the head, however, in one or two species, offers a close approximation to the human form, passes through numerous intermediate gradations, until it reaches a point at which it can only be compared with that of the hound. The body, which is generally slight and well made, is in some few instances remarkably short and thick-set, and in others drawn out to a surprising degree of tenuity. Their limbs vary greatly in their proportions; but in most of them the anterior are longer than the posterior: in all they are admirably adapted to the purposes to which they are applied, climbing and leaping, by the slenderness of their form, flexibility of their joints, and the muscular activity in which these qualities are so strikingly combined. Of all their organs there is perhaps none which exhibits so remarkable a discrepancy in every particular as the tail; which is entirely wanting in some, forms a mere circle in others, in a third group is short and tapering, in a fourth of moderate length and cylindrical, in a fifth extremely long but uniformly covered with hair; in others, again, of equal length, divested of hair beneath and near the tip, and capable of being twisted round the branch of a tree or any other similar substance in such a manner as to support the whole weight of the animal, even without the assistance of his hands.

“In none of them, it may be observed, are the hands formed for swimming, or the nails constructed for digging the earth; and in none of them is the naked callous portion, which corresponds to the sole or the palm, capable of being applied, like the feet of man or of the bear, to the flat surfaces on which they may occasionally tread. Even in those which have the greatest propensity to assume an upright posture, the body is, under such circumstances, wholly supported by the outer margins of the posterior hands. The earth, in fact, is not their proper place of abode; they are essentially inhabitants of trees, and every part of their organization is admirably fitted for the mode of life to which they were destined by the hand of nature herself. Throughout the vast forests of Asia, Africa, and South America, and more especially in those portions of the three continents which are comprehended within the tropics, they congregate in numerous troops, bounding rapidly from branch to branch, and from tree to tree, in search of the fruits and eggs which constitute their principal means of subsistence. In the course of these peregrinations, which are frequently executed with a velocity scarcely to be followed by the eye, they seem to give a momentary, and but a momentary, attention to every remarkable object that falls in their way, but never appear to remember it again; for they will examine the same object with the same rapidity as often as it recurs, and apparently without in the least recognizing it as that which they had seen before. They pass on a sudden from a state of seeming tranquillity to the most violent demonstrations of passion and sensuality; and in the course of a few minutes run through all the various phases of gesture and action of which they are capable, and for which their peculiar conformation affords ample scope. The females treat their young with the greatest tenderness until they

able of shifting for themselves; when they pose upon the world, and conduct themselves from that time forwards in the same manner the most perfect strangers.

degrees of their so much vaunted intelligence, general very limited, and rarely capable of subservient to the purposes of man, vary much as the ever-changing outline of their in the grave and reflective orang-outang, whose powers of imitation in his young state have some of so much ridiculous exaggeration and argumentation, to the stupid and savage baboon. The gross brutality is scarcely relieved by a single intelligence, the gradations are regular and easy. The circumstance connected with the development of the faculty, or perhaps we should rather say, with its extinction, consists in the fact that it is only in animals which have not yet attained their full development that it is capable of being brought into play; the young of all animals, even of the most tractable races, entirely lose their docility, and with it the docility, of their youth, becoming at length as stupid and as savage as the adults of the tribe.

Monkeys of the Old and of the New World differ from each other in several remarkable points, some of which are universally characteristic of all the species, and others, although affording good and tangible discrimination, are but partially applicable. The social instincts of all the species inhabiting the Old World are similar to those of man, and divided only by degree. In those of the New World, on the other hand, they are invariably separated by a broad division, and occupy a position more or less lateral. For again the molar teeth are uniformly five in

number, crowned with obtuse and flattened tubercles; while in the latter they are either six in number, or in the few anomalous cases in which they are limited to five, and which are peculiar to a group that ought to occupy an intermediate station between the Monkeys and the Insect-eating Carnivora, their crowns are surmounted by sharp and somewhat elevated points. The tails of all the American Monkeys are of great length, but they differ more or less from each other in the power of suspending themselves by means of that organ, a faculty which is nevertheless common to the greater number of them, and of which those of the Old World are entirely destitute. On the other hand the American species never exhibit any traces of the callosities or of the cheek-pouches, which are so common among the Asiatic and African races.

“Each of these grand divisions has been subdivided into several minor groups or genera; but zoologists have hitherto been by no means unanimous with respect to the principles on which this subdivision ought to be effected. The arrangement which appears to be most generally adopted at the present day is that of M. Cuvier and M. Geoffroy Saint Hilaire, which is essentially founded on the application of an imaginary rule, first employed by Camper for ascertaining the degree of intelligence, and consequently of ideal beauty, expressed by the human face in its various gradations of elevation or debasement, and called by him the facial angle. Unfortunately, however, the operations of nature in the animal creation can never be subjected to geometrical laws; nor can her innumerable phases be expressed with the precision of a mathematical theorem. This assumed point of comparison varies almost indefinitely, not merely in different species, but even in the same individual; and the orang-outang himself, who is supposed to approach most nearly

human form, offers the most striking illustration of truth of this observation; inasmuch as in his young intellectual state his facial angle is equal to 65° , while in his aged and debased condition, in which he has actually been repeatedly described as a different animal under the name of Pongo, it sinks below 30° ; degrading him beneath the level of the most savage and stupid of apes.

In the foregoing observations we may perhaps be condemned as giving too much space to the generalities of the subject; an objection to which we can only answer nearly the whole of our knowledge of the Monkey consists in generalities. Of the great number of species, upwards of one hundred, which are now known and characterized, very few are distinguished from their primate fellows by striking and strongly-marked characters, either physical or moral. The groups too are created by such gradual and easy transitions, that though the typical forms of each, isolated from the mass and placed in contrast with each other, unquestionably present many broadly distinguishing peculiarities, yet the series offers a chain so nearly complete and unbroken as scarcely to admit of being treated of in any way than as one homogeneous whole."

The Monkey tribe is very numerous, and has been divided by naturalists in three divisions. Those which have no tails are termed *Apes*, and those which have short tails are denominated *Baboons*; but by far the most numerous division consists of those which have long tails, which are known by the general name of *Monkeys*. This classification is not strictly adhered to by modern writers, who use the word *Ape* with greater latitude of application.

THE ORANG-OUTANG.



CUVIER thus describes this animal. The average height of the species is from three to four feet.* The body covered with coarse red hairs. The forehead equals height one half of the rest of the visage. The face bluish. There are neither pouches in the cheeks, nor protuberances on the posteriors. The hinder thumbs are remarkably short. This celebrated ape resembles man more nearly than any other animal in the form of the head and the volume of the brain. The natural history of the Orang-Outang has been miserably disfigured by the mixture of it with that of other apes of the larger size, more especially with that of the Chimpanse. Upon a critical examination I have ascertained that he inhabits the most oriental countries only, as Malacca, Cochin China, and particularly the great island of Borneo, whence he has been brought to Europe by way of Java, though but rarely. He is gentle, easily tamed, and capable of attachment. From the character

* This is French measure. It should be $2\frac{1}{2}$ to $4\frac{1}{2}$ feet.

al conformation he can arrive at some facility in
ion of several human actions ; but his intelligence
ans equals the exaggerated accounts we have re-
it, nor does it appear to surpass much that of
e species. Camper has discovered and ably de-
vo membranous sacs, which produce a thickness
eness in the voice ; but he was wrong in believ-
he nails are always wanting on the hinder thumbs.
e in possession of some very minute and labour-
tions of this animal, especially by M. F. Cuvier-
sor Camper, Tilesius, and Dr. Abel. The last we
ent to the reader in the author's own words, as sci-
eful, and highly interesting.

hair of the Orang-Outang is of a brownish red
d covers his back, arms, legs, and outside of his
l feet. On the back it is in some places six inch-
nd on his arms five. It is thinly scattered over
and feet, and is very short. It is directed down-
the back, upper arm, and legs, and upwards on the

The face has no hair except on its sides, some-
ne manner of whiskers, and a very thin beard.
lders, elbows, and knees, have fewer hairs than
ts of the arms and legs. The palms of the
d feet are quite naked.

prevailing colour of the animal's skin, when na-
en through the hair, is a bluish gray.

head, viewed in front, is pear-shaped, expanding
chin upwards, the cranium being much the larger
e eyes are close together, of an oval form, and
n colour. The eye-lids are fringed with lashes,
ower ones are succular and wrinkled. The nose
nt with the face, except at the nostrils, which are
elevated : their openings are narrow and oblique.

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h is very projecting, and of a roundish mammil-
Its opening is large, and when closed is mark-
le more than a narrow seam. The lips are very
and scarcely perceptible when the mouth is shut.
in projects less than the appearance of a double chin, and
membrane gives the animal is angry or much please
s out when the animal is angry or much please
of the jaws contains twelve teeth; namely, four
teeth, the two middle ones of the upper jaw be-
ce the width of the lateral; two canine, and six de-
eth. The ears are small, closely resembling the b-
r, and have their lower margins in the same lin-
he external angles of the eyes.

“The chest is wide compared with the pelvis: it
is very protuberant. The arms are long in prop-
the height of the animal, their span measuring
feet seven inches and a half. The legs are s-
pared with the arms.

“The hands are long, compared with their
with the human hand. The fingers are small a-
the thumb is very short, scarcely reaching to
of the fore finger. All the fingers have very
of a blackish colour, and oval form, and ex-
ting with the extremities of the fingers.
long, and resemble hands, in the palms, an-
gers rather than toes, but have heels res-
man. The great toes are very short, a-
angles to the feet close to the heel, and
out nails.

“The Orang-Outang of Borneo is u-
walking in a perfectly erect posture.
his whole exterior conformation, and
tempts to counteract its tendency. F

ing a considerable angle with the back, re of gravity so far beyond the perpendiculars, like the fore legs of other animals, are support the body. So difficult, indeed, it is the upright position for a few seconds, un- n of his keeper, that he is obliged, in the 'his task, to raise his arms above his head, behind him, to keep his balance. His pro- on a flat surface is accomplished by placing pon the ground, and drawing his body be- moving in this manner, he strongly resem- ecrepit in the legs, supported on stilts. In re he probably seldom moves along the ole external configuration showing his fit- ng trees, and clinging to their branches. d pliability of his fingers and toes enable th facility and steadiness, and the force of powers him to support his body for a great by onè hand or foot. He can thus pass l object to another, at the distance of his a other, and can obviously pass from one e to another, through a much greater inter- on a flat surface, this animal turns his legs sitting on the branch of a tree, or on a rope, heels, his body leaning forward against his animal uses his hands like others of the

al described by the Doctor, "on his arrival atavia, was allowed to be entirely at liberty, y or two of being put on board the Cæsar to England; and whilst at large, made no ape: but became violent when put into a nboo cage, for the purpose of being convey- and. As soon as he felt himself in con-

nement, he took the rails of the cage into his hands, making them violently endeavoured to break them in pieces; but finding that they did not yield generally tried them separately, and, having discovered one weaker than the rest, worked at it constantly till he had broken it and made his escape. On board ship, an attempt was made to secure him by a chain tied to a strong staple, but he instantly unfastened it, and ran off with the chain dragging behind; but finding himself embarrassed by its length, he coiled it once or twice, and threw it over his shoulder. This feat he often repeated; and when he found it would not remain on his shoulder, he took it into his mouth.

“After several abortive attempts to secure him more effectually, he was allowed to wander freely about the ship, and soon became familiar with the sailors, and passed them in agility. They often chased him about the rigging, and gave him frequent opportunities of displaying his adroitness in managing an escape. On first starting he would endeavour to outstrip his pursuers by speed; but when much pressed, he eluded them by seizing a loose rope, and swinging out of their reach. At times, he would patiently wait on the shrouds, or the mast head, till his pursuers almost touched him, and then suddenly lower himself to the deck by any rope that was near him, or bound along the mainstay from one part to the other, swinging by his hands, and moving thus over the other. The men would often shake the rigging which he clung with so much violence, as to make them fear his falling; but I soon found that the power of his muscles could not be easily overcome. When in a playful humour, he would often swing within arm's length of his pursuer, and, having struck him with his tail, would throw himself from him.

“Whilst in Java he lodged in a large tree

welling, and formed a bed by intertwining the branches, and covering them with leaves. During the day he would lie with his head projecting beyond the branches whoever might pass under; and when he came down with fruit, would descend to obtain a share. He was always retired for the night at sunset, or sooner if he had been well fed, and rose with the sun, and visited those on whom he habitually received food.

Some small Monkeys on board from Java he took notice of, whilst under the observation of the persons on ship. Once, indeed, he openly attempted to throw overboard a cage, containing three of them, overboard, probably, he had seen them receive food, of which he could obtain no part. But although he held so little intercourse with them when under our inspection, I had no suspect that he was less indifferent to their society when free from our observation; and was one day seen on the top gallant-yard of the mizen-mast to be seen with him playing with a young male monkey. Lying on the deck, partially covered with a sail, he for some time continued, with great gravity, the gambols of the monkey which bounded over him: but at length caught the monkey by the tail, and tried to envelop him in his covering. The monkey seemed to dislike his confinement, and broke loose, but again renewed his gambols, and although he was again caught, always escaped. The intercourse, however, did not seem to be that of equals, for the Orang-utan never condescended to romp with the Monkey, as the boys of the ship do with the monkeys. Yet the Monkeys had a great predilection for his company; for when he broke loose, they took their way to his resting place, and were often seen lurking about it, or creeping stealthily towards him. There appeared to be no greater intimacy: as they appeared as confidently

familiar with him when first observed, as at the close of their acquaintance.

“But although so gentle when not exceedingly irritated the Orang-Outang would be excited to violent rage, which he expressed by opening his mouth, showing his teeth, seizing and biting those who were near him. Sometimes indeed, he seemed almost driven to desperation: and on two or three occasions, committed an act, which in a rational being, would have been called the threatening suicide. If repeatedly refused an orange when he was tempted to take it, he would shriek violently, and swing furiously about the ropes; then return and endeavour to obtain it: if again refused, he would roll for some time like an angry child upon the deck, uttering the most piteous screams; and then suddenly starting up, rush furiously over the side of the ship and disappear. On first witnessing this act, we thought that he had thrown himself into the sea; but, on a search being made, found him concealed under the chains.

“This animal neither practises the grimaces and antics of other Monkeys, nor possesses their perpetual propensity to mischief. Gravity, approaching to melancholy, and mildness, were sometimes strongly expressed in his countenance, and seem to be the characteristics of his disposition. When he first came among strangers, he worked for hours with his hand upon his head, looking perpetually at all around him; and when much incommoded by examination, would hide himself beneath any object that was at hand. His mildness was evinced by his forbearance under injuries, which were grievous to him: he was excited to revenge: but he always avoided those who often teased him. He soon became strong and bold to those who used him kindly. By their side he sat of sitting; and getting as close as possible to

ould take their hands between his lips, and fly to or protection. From the boatswain of the *Alceste*, I shared his meals with him, and was his chief favourite; though he sometimes purloined the grog and the tobacco of his benefactor, he learned to eat with a spoon; might be often seen sitting at his cabin door, enjoying himself, quite unembarrassed by those who observed him, and with a grotesque and sober air, that seemed a puzzle on human nature.

Next to the boatswain, I was, perhaps, his most intimate acquaintance. He would always follow me to the deck, whither I often went for the sake of reading, to get from the noise of the ship; and, having satisfied himself that my pockets contained no eatables, would lie by my side, and pulling a topsail entirely over him, hid from it occasionally to watch my movements.

His favourite amusement in Java was in swinging from the branches of trees, in passing from one to another, and climbing over the roofs of houses; on board, in hanging his arms from the ropes, and in romping with the boys of the ship. He would entice them into play by striking them with his hand as they passed, and bounding from them, but allowing them to overtake him, and engage in a quick scuffle, in which he used his hands, feet, and head. If any conjecture could be formed from these signs of his mode of attacking an adversary, it would seem to be his first object to throw him down, then to strike him with his hands and feet, and then wound him with his teeth.

On board ship he commonly slept at the mast head, wrapping himself in a sail. In making his bed, he took the greatest pains to remove everything out of his way that might render the surface on which he intended to lie uneven: and, having satisfied himself with this part of the arrangement, spread out the sail, and lying down

upon it on his back, drew it over his body. Sometimes pre-occupied his bed, and teased him by refusing to get it up. On these occasions he would endeavour to pull it sail from under me, or to force me from it; and would rest till I had resigned it. If it were large enough both, he would quietly lie by my side. If all the while happened to be set, he would hunt about for some other covering, and either steal one of the sailors' jackets or shirts that happened to be drying, or empty a hammock of its blankets. Off the Cape of Good Hope he suffered much from a low temperature, especially early in the morning, when he would descend from the mast, shivering with cold, and running up to any one of his friends climb into their arms, and clasping them closely, derive warmth from their persons, screaming violently at any attempt to remove him.

“His food in Java was chiefly fruit, especially mangos, of which he was extremely fond. He preferred coffee and tea, but would readily take wine, and exemplified his attachment to spirits by stealing the Captain's bottle. Since his arrival in London he has preferred rum and milk to any thing else, but drinks wine and liquors.

“In his attempts to obtain food, he afforded us many opportunities of judging of his sagacity and disposition. He is always very impatient to receive it when brought to him, and became passionate when it was not sent up; and would chase a person all over the ship for it. I seldom came upon deck without sweetmeats in my pocket, and could never escape his view. Sometimes I endeavoured to evade him by going to the mast-head, but was always overtaken on my progress. When he came up with me, he would secure himself by one of the rigging shrouds, and confine my legs with the other

While he rifled my pockets. If he found it impossible to overtake me, he would climb to a considerable height in the rigging, and then drop suddenly upon me. Perceiving his intention, I attempted to descend, he threw down a rope, and meet me at the bottom of the rigging. Sometimes I fastened an orange to the end of the rope, and lowered it to the deck from the mast head ; when as he attempted to seize it, drew it rapidly up, or being several times foiled in endeavouring to reach it by direct means, he altered his plan. Appearing to be doubtful about it, he would remove to some distance, and then descend the rigging very leisurely for some time, and then with a sudden spring, catch the rope which held it. When again by my suddenly jerking the rope, he was foiled, he first, seemed quite in despair, relinquish his effort, and then, about the rigging, screaming violently. But he would not give up, he would say return, and again seizing the rope, disengage himself, jerk, and allow it to run through his hand till he reached the orange ; but if again foiled, would throw it to my side, and taking me by the arm, confine it and haul the orange up.

I have seen him exhibit violent alarm on two occasions when he appeared to seek for safety in gaining as great an elevation as possible. On seeing eight large turtles on board, whilst the Cæsar was off the Island of St. Helena, he climbed with all possible speed to a high part of the ship than he had ever before reached, and, leaning overboard, projected his long lips into the water, and, like a hog's snout, uttering at the same time a sound which might be described as between the croaking of a frog and the grunting of a pig. After some time he descended, but with great caution, peeping continually at the turtles, but could not be induced to approach within twenty yards of them. He ran to the same height,

and uttering the same sounds, on seeing some m
ing and splashing in the sea; and since his arriv
gland has shown nearly the same degree of fe
sight of a live tortoise."

This animal survived his transportation to
from August, 1817, when he arrived, to the 1st
1819, during which interval he was in the custod
Cross at Exeter 'Change, as much caressed for the
ness of his disposition as he was noticed for his g
ty. There was no need of personal confinement
tle of restraint or coercion; to his keepers espec
to those whom he knew by their frequent visits
played a decided partiality. During his last ill
at his death, his piteous appearance, which so
bespeak his entreaties to those about him for r
not fail to excite the feelings of all who witness
an excitement evidently heightened by the recoll
human suffering, under similar circumstances, v
sight of this animal so strongly brought to mind.
shedding his teeth at the period of his death,
probably promoted, if not caused by it.

Of the many attempts to transport the Or
alive to Europe, we believe only one or two
successful. In 1825 one was brought to th
Batavia by Captain Blanchard, but unfortun
in the harbour before landing. Captain Shir
rived here from Batavia during the present
1831) has been more fortunate. He has bro
Orang-Outang, which is now in good he
every prospect of enduring the climate.
of about 18 months old, and was procure
Borneo. The interest excited in respect
as well by its own extraordinary character
variety of accounts that authors have g

amine it with some care. We have also
set likeness to be taken, which is here



aring this animal with the preceding description
el, we find it remarkably accurate and complete.
e that the thumb of the hinder hand has no nail,

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seems that in nine cases mentioned by Dr. ... the fact existed. Two instances to the contrary, are cited; one by Tilesius, the other by ...

We also remarked that the thumb is placed at right angles to the hand, inclining a little towards the ...

. The dimensions of the animal are as follows.

HINDER ARM.

Length of the hand	-	-	-	6½
Middle finger	-	-	-	3½
Thumb	-	-	-	1½
Wrist to the elbow	-	-	-	6½
Thigh bone	-	-	-	4½

FORE ARM.

Hand	-	-	-	5½
Thumb	-	-	-	2
Wrist to the elbow	-	-	-	7½
Shoulder to the elbow	-	-	-	7½
Middle finger	-	-	-	3½

Whole length of hinder arm - - 18

Whole length of fore arm - - 20

Length of the ear - - -

From the back of the head, to the point of the chin - - -

Length of the back - - -

Length of the head - - -

Whole length of the animal standing erect

Facial angle - - - 5'

We deem it unnecessary to add anything further to the ample account we have given, and shall therefore not attempt to describe the Pongo, which, as will be ascertained by some to be the Orang-Outang, of a different size.

THE PONGO.

it be distinguished from the Pongo of ears only to have existed in that author's first correct description of it was given Vurmb, whose dissertation on it is to be of the Batavian Society. Cuvier thus the Pongo has the long arms and the ab- cular to the Orang-Outangs, with the the Guenons and Baboons, and a form r peculiar. The forehead retreats con- cranium is small and compressed. The aidal form in consequence of the eleva- ing branches of the lower jaw, which gans of the voice some disposition anal- ich has been observed in the howling- rica. We know already that they have ch adhering to the larynx like the ba- t one species is known, which is the onkey tribe, and inhabits the island of

tion of Cuvier's work, he, as well as other natu- to suspect that the Orang-Outang and Pongo animal; the Orang-Outang, as recognized in e young Pongo. They are both natives of the examination, their skeletons exhibit an almost

The number of the vertebræ is the same; the limbs and the form of the hands is altogether he thumb of the hinder hands is equally short he membranaceous bag at the throat is equally in both.

; these points of resemblance, the form of the in the two animals; that of the Orang-Outang the human head in shape, more nearly than

Geoffroi supposes that the Pongo may walk erect. Griffith observes that "this position is no more natural and convenient to the Pongo than to the other Simia. That he can occasionally use it, is certain, but that he actually does so, is far from probable. He is not so well organized for this purpose as the Orang-Outang, the insufficiency in this respect has already been amply proved. Like him, the natural organization qualifies him to use either bipedal nor quadrupedal motion with facility, but he is eminently fitted for the process of climbing, and the exploration of the forest. The excessive strength and agility of the Pongo renders an intimate knowledge of his habits extremely difficult. It is reported of one, that when an attempt was made to take him, he defended himself so violently with the branches of trees, that it was impossible to seize him alive."

Stark considers the Orang-Outang and Pongo to be the same. He has the following observations

that of any other animal; while the most remarkable feature of the Pongo is the excessive elongation of the muzzle. M. Temminck marks that "this considerable volume of the muzzle cannot be sustained but at the expense of the other adjoining parts; we accordingly find that there is scarcely any apparent forehead; that the brain contained within the cranium is uncommonly small; and that the olfactory lobe is situated as far as the posterior part of the head. The magnitude of which forms the principal character of the Pongo, and is remarkable, moreover, not only by the enormous thickness of the gums, but also by the extraordinary size of the canine teeth with which they are provided; the incisors exceed those of the Lion, and the canines do not differ much from that animal." From these and other considerations, Temminck has made a separate genus of the Simia of Wurm, and named it Pongo, the characters of which, independently common to all Simiæ, are facial angles of 30 degrees, absence of callosities, and want of tail. As yet we know but of the Pongo of Borneo.

the Great Orang-Outang. "The history of this confounded with relations of other species, has been involved in great obscurity. The animal called by naturalists under the name of *Satyrus*, species which have occasionally been seen in Europe, Pongo of Wurmb, seem only, as Cuvier conjecture the young of the gigantic animal, described and figured by Dr. Clarke Abel. From the measurements of the shrivelled and dried skin, that gentleman calculated the height to exceed 7 feet and a half, though the height of the animal was ascertained by the state of his hand by the apophysis of the bones of its hands being completely ossified."

Dr. Abel's letter describing the animal above referred to, Calcutta, 1825. He considers Cuvier "right in considering Wurmb's animal as the adult of the young east-Indians seen in Europe, but that he is mistaken in supposing that it is also the adult of the African species."

One of the animal was deposited in the museum at Calcutta.

Dr. Abel's description is as follows :—

"The face of this animal," says Dr. Abel, "with the exception of the beard, is nearly bare, a few straggling hairs being alone scattered over it. It is of a dark brown colour, excepting the margins of the lips, which are lighter. The eyes are small in relation to those of man and are about an inch apart. The eyelids are furnished with lashes. The ears are $1\frac{1}{2}$ inch in length, and an inch in breadth, are close to the head, and resemble those of man, with the exception of wanting the cartilage. The nose is scarcely raised above the level of the face, and is chiefly distinguished by two nostrils, $\frac{3}{4}$ inch in breadth, placed obliquely side by side. The mammary glands project in a mamillary form. The opening of the mouth is very large. When closed, the lips appear nar-

row, but are in reality half an inch in thickness. The hair of the head is of a reddish brown, grows from behind forwards, and is five inches in length. The beard is handsome, and appears to have been curly in the animal's lifetime. Its colour is lighter than that of the head, approaching to a light chestnut. The beard is about three inches long, springing very gracefully from the upper lip, near the angles of the mouth, in the form of mustachios, whence descending, it mixes with that of the chin, the whole having at present a very wary aspect. The face of the animal is much wrinkled.

"The palms of the hands are very long, are quite naked from the wrists, and are of the colour of the face. Their backs are covered with hair to the last joint of the fingers, and this inclines backwards towards the wrists, and then turns directly upwards. All the fingers have nails, which are strong, convex, and of a black colour. The thumb reaches to the first joint of the fore-finger.

"The soles of the feet are bare, and of the same colour as the hands; they are covered on the back with long brown hair to the last joint of the toes. The great toe is set on nearly at right angles to the foot, and is relatively very short. The original colour, however, of the hands and arms, and the soles of the feet, is somewhat uncertain, in consequence of the effect of the spirit in which they have been preserved.

"The skin itself is of a dark leaden colour. The hair is of a brownish red, but when observed at some distance, has a dull, and in some places an almost black appearance; but, in a strong light, it is of a light red. It is in all parts very long; on the fore-arm it is directed upwards. On the upper arm its general direction is downwards, but from its length it hangs shaggy below the arm. From the shoulders, it hangs in large and long massy tufts,

which, in continuation with the long hair on the back, seems to form a continuous mass to the very centre of the body. About the flanks the hair is equally long, and, in the living animal, must have descended below the thighs and nates. On the limits, however, of the lateral termination of the skin, which must have covered the chest and belly, it is scanty, and gives the impression that these parts must have been comparatively bare. Round the upper part of the back it is also much thinner than elsewhere, and small tufts at the junction of the skin with the neck are curled abruptly upwards, corresponding with the direction of the hair at the back of the head."

This animal was killed on the coast of Sumatra, by a party who had landed for the purpose of watering. Captain Cornfoot, the commander of the vessel, in his relation of its capture to Dr. Abel, dwelt much "upon the human-like expression of its countenance, and especially on the beautiful arrangement of its beard. He also obliged me with some account of its capture, as reported to him by his officers, and feelingly described the piteous action of the animal on being wounded, of its apparent tenacity of life. It seems that, on the spot where this animal was killed, were five or six trees, which occasioned his hunters great trouble in procuring their prey; for, in consequence of the extreme agility and power of the animal in springing from branch to branch, and bounding from one tree to another, his pursuers could not fix their aim, until they had cut down all the trees but one. When thus limited in his range, the Orang-Outang was shot, but did not die till he had received five balls and the thrust of a spear. One of the first balls probably penetrated his lungs, as he, immediately after the infliction of the wound, slung himself by the feet from a branch, with his head downwards, and allowed the blood to flow from his mouth. On receiving a

wound he always put his hand over the injured part, and distressed his pursuers by the human-like agony of expressions. When on the ground, after being exhausted by his many wounds, he lay as if dead, with his head resting on his folded arms. It was at this moment that an officer attempted to give the *coup de grace*, by pushing a spear through his body, but he immediately jumped on his feet, wrested the weapon from his antagonist, and shivered it to pieces. This was his last wound, and last great exertion; yet he lived some time afterwards, and drank, it is stated, great quantities of water. Captain Cornfoot also observes, that the animal has probably travelled some distance from the place where he was killed, as his legs were covered with mud up to his knees."

THE CHIMPANSE.

CUVIER thus describes this remarkable species of ape. "It is covered with black or brown hairs, less thickly in front. If we can trust to the relations of travellers, this animal approaches, or even surpasses the human stature. But we have not yet seen in Europe any specimen confirmatory, or even indicative of the truth of this assertion. It inhabits Guinea and Congo—lives in troops—constructs huts of leaves and branches of trees—arms itself with stones and clubs, and employs them to repulse from its dwelling both elephants and men—pursues and carries off the negro women, &c. Naturalists have constantly confounded this animal with the Orang-Outang. In a domesticated state, it becomes gentle enough to be taught to walk upright, and to sit and eat after our manner."

The Chimpanzé approaches the human form more nearly than any other animal. Unlike the Orang-Outang it has no intermaxillary bone. It has also the last joint of

the great toe perfect. That it has greater facility for the biped or upright mode of locomotion than the Orang-Outang is also apparent by its possessing the round ligament of the thigh bone which the Orang has not.



Griffith closes his account of this animal in the following words:—"Of the intellectual properties of this species, as we can add little new, we shall not say much. If the account of Grand Pré, and other travellers, can be relied on, its intelligence seems to surpass that of the Orang-Outang. Docility, submissiveness and an apparent melancholy have marked the characters of the few young specimens brought to Europe, rather than any mental acuteness, surpassing that found in most of the species of the quadrumanous race in general."

This animal has been frequently taken on the coast of

Africa, and carried to Europe. It generally passes under the name of Orang-Outang, which properly belongs to the Asiatic species just described. The latter animal, it would seem, has never been taken to Europe alive, except in the instance of which we have given an account; and no one we believe has reached this country except the one now in the city of Boston.

THE GIBBON, OR LONG-ARMED APE,*



ALWAYS keeps its erect posture, even when it walks upon all fours, its arms being as long as its body and legs put together. We have seen one of these animals alive; it was but young, and not then more than three feet high though we must presume that it had not attained its full size, but that when it is adult, and in its free state, it is at least four feet. It had no appearance of any tail; it had a circle of gray bushy hair all round the face, which gave it a very remarkable appearance: its eyes were large and sunk in its head, its face resembling that of a man, tanned, and its ears well proportioned. This Ape appeared to us

* Cuvier mentions several other species of the Gibbon, the White Gibbon, the ash-coloured Gibbon, the Siamang, &c.

of a gentle and tractable disposition; its motions neither rash nor precipitate. It was fed on bread, almonds, &c. and calmly received the fruit that was offered to it; it was very averse to cold and wet weather and did not long live after being brought from its native country. It is a native of the East Indies, and partly found along the coasts of Coromandel, Malacca, and the Molucca Islands.

THE SIAMANG.



These animals are black all over, and have two naked patches of skin on the neck which are occasionally inflated. Their hair is long and soft. They are very common in Su-

matra. They are generally found assembled in large troops conducted, it is said, by a chief whom the Malays believe invulnerable. Thus assembled at sunrise, and again at sunset, they vie with each other in making the most dreadful cries, perfectly stunning to those accustomed to them, and frightful in the highest degree to strangers. At all other times they appear to be perfectly quiet, as long at least as they are undisturbed.

Maternal affection will triumph over every other passion, and the mother of a young one which has been wounded will immediately throw away her life in an attack on an enemy. This affection is also displayed under more pleasing circumstances, and their care of the persons of their young by washing, rubbing and drying them, in spite of the pettish cries and resistance of the infant Siamang, is highly ludicrous and amusing.

This species is easily tamed, or rather reconciled to bondage; but unconquerably timid, it never displays the familiarity found in other monkeys, and its submission seems rather the result of extreme apathy than of confidence or affection. The Siamang, in short, displays but very little of intellectual faculty, generally squatting enveloped in its long arms, and the head brought down between the legs (in which position it sleeps) it passes the greater part of its time in sullen retirement; and seldom breaks its silence except by disagreeable cries, like those of the turkey. In confinement it takes its food with leisure and indifference; its mode of drinking is equally measured with its other habits; it is by plunging the fingers in water and then sucking them.

THE MAGOT OR BARBARY APE.

THIS animal is generally known by the name of the Barbary Ape. Of all the Apes which have no tail, this

al can best endure the temperature of our climate. have kept one for many years. In the summer it ined in the open air with pleasure ; and in the winter it be kept in a room without any fire. It was filthy, of a sullen disposition : it equally made use of a grim-to show its anger, or express its sense of hunger : its ms were violent, its manners awkward, and its physi-my rather ugly than ridiculous. Whenever it was ded, it grinned and showed its teeth. It put whatever given to it into the pouches on each side of its jaws, commonly eat every thing that was offered to it, pt raw flesh, cheese, and other things of a fermentative e. When it slept, it was fond of roosting on a len or iron bar. It was always kept chained, for not- tanding its long subjection, it was neither civilized, bnd of its keeper : apparently, it had been but badly ated, for I have seen others of the same kind who more sagacious, obedient, gayer, and so tractable as taught to dance, and suffer themselves quietly to be ed and dressed.



■ Ape is about two feet and a half, or three feet n its erect posture ; but the female is not so large male. It rather chooses to walk on all fours, than When it sleeps, it is almost always sitting. There

are two very prominent callosities on its posteriors; it differs also from the *Pithecos*; * first, in the form of its snout, which is thicker and longer, like that of the booby, whereas the *pithecos* has a flat visage, like the human. Secondly, in having long canine teeth; instead of which the *pithecos* has them no longer in proportion than of a man. Thirdly, in its nails, which are neither so long nor so round; and in short it is larger, and of a more sullen and untractable disposition than the booby, which abounds in Babary, and in the forests of India and Africa. In Barbary the trees are sometime covered with them.

It is probably this kind of Monkey which Robins speaks of in the following terms: "We travelled up a great mountain at the Cape of Good Hope, where we were diverted ourselves with hunting the large Apes, which were there in great plenty. I am not able to represent the intractableness of these animals which pursued us, with the swiftness and impudence with which they returned after we had driven them away. Sometimes they refused us to approach so near them, that, stopping close to one of these animals to take my observations, I thought myself certain of securing him, when, by a sudden leap, he sprang above ten paces from me, and climbed up a tree with the greatest agility. They remained afterwards very quiet, looking on us as if they were pleased with our astonishment. They were some so exceedingly large, that if they had been of a ferocious nature, our number would not have been sufficient to secure us from their attacks. As it would

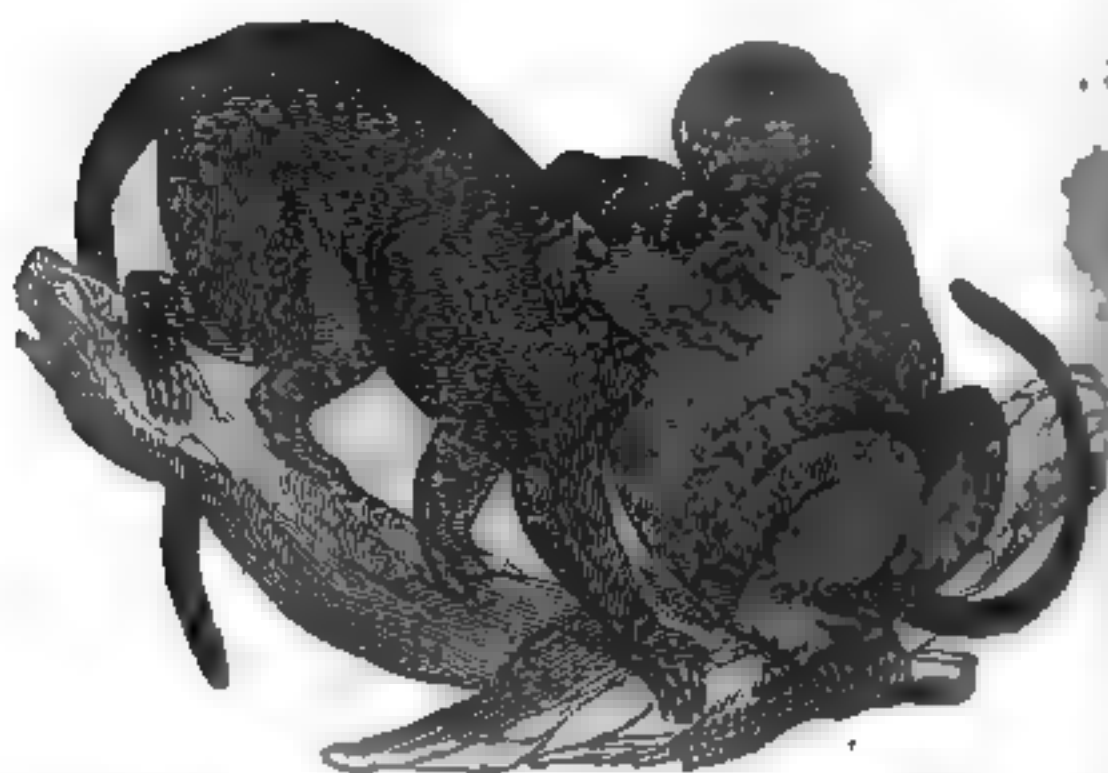
* The *Pythecos* described by Buffon was a young *Magot*.

The observations of Blainville have established the fact that the *Pithecos* was our *Magot*.—Griffith.

useless to kill these animals, we made no use of our ; but the captain, thinking to wound one of them, was seated on a tree, after a long pursuit, had no r presented his piece, but the animal, probably from memembrance of the execution of some of his compan in the same manner, was so greatly terrified at it, : fell almost motionless at our feet, and being stunned fall, we had not the least trouble to secure it: how- when it revived, we had occasion for all our strength ldress to keep it, defending itself by biting those who near it, which obliged us to bind our handkerchiefs ts. head."

ernier tells us that some of the inhabitants of India a ludicrous mode of avenging themselves on these eys, who not unfrequently attack the women who ing to market, and rob them of their provisions. In an space, near the retreat of the Apes, they place : six baskets of rice, forty or fifty yards asunder, and he baskets, a number of stout cudgels, each two feet gth. They then hide themselves, to watch for the . Thinking that no one sees them, the Apes hasten ds the baskets. For a while they grin angrily at other, then approach, then retire, and seem to dread g to action for the prey. More daring than the males, males at length advance to the baskets, and as they in their heads to eat, the males on the one side rush rd to prevent them. This brings on a general en- ment, and the cudgels are lustily plied till the weak- rty is compelled to seek for shelter in the woods. victors then quietly fall to upon their hard-earned

THE BABOON,



PROPERLY so called, has a pouch on each side of its cheek, capable of being greatly distended; it has callosities on its posteriors, which are naked, and of a red colour, and are often of a large size and disgustingly conspicuous: its tail is crooked and thick, generally as long as, and sometimes longer than the body, but in several of the species it is extremely short. The canine teeth are much thicker and longer than those of men. Its snout is very thick and very long, terminating in a flattened extremity like that of the dog; its ears are naked; its body and limbs are strong, thick, and short; its hair is long and thick, of a reddish brown colour, and pretty uniform over the whole body. It walks oftener on all fours than upright, and is from three to four feet high; but there seems to be different sizes of these animals. The female brings forth usually but one at a time, which she carries in her arms and in a peculiar manner, clinging to her breast: in other

these Baboons, although mischievous and ferocious, are not carnivorous; they principally feed upon roots, and corn; they generally keep together in troops, and sally forth to commit their depredations on neighbouring vineyards or orchards. They are found in the eastern coast of Africa, and more especially of the tropical parts of the eastern coast. "As they are extremely fond of grapes, and ripe fruit, they assemble together in great numbers, and proceed on their enterprise with previous deliberation."

The dogs who are set to watch do not easily catch these animals, as they are extremely active, and make great use of their teeth and claws. On these occasions, a part of them enter the enclosure, while one company stands sentinel; the rest stand without, at a small distance from each other, and form a line reaching all the way from the enclosure to the rendezvous without, which is generally in some craggy mountain. Every thing being thus disposed, the plunderers enter the orchard throw the fruit to them without as fast as they can gather it: or, if the wall or hedge be high, to those that sit at the top, and these hand the plunder to those on their side."

THE MAIMON OR FIG-TAILED BABOON,

This is a native of the banks of the Ganges, has a pouch on each side of its cheeks, and callosities on its posterior tail is naked, curled up, and about the length of six inches; the canine teeth are not much longer than those of men; the snout is very broad; the orbits of the eyes very acute above; the face, ears, and feet are naked, and of a flesh colour; the hair on the body is of a beautiful greenish gray, each hair being black tipped with yellow; the extremities are yellow; the region of the reins is a golden yellow;

and the thighs are of a lively red. It sometimes erect, and at other times upon all fours: it is six feet or two feet and a half tall when erect. It is a full animal.

THE MANDRILL.*



THIS Baboon, which also bears the name of the Red-nosed Baboon, is an ugly, disgusting animal. It is found on the Gold Coast, and in other southern provinces of Africa where the Negroes call it *Boggo*, and the Europeans *Mandrill*. This animal is the largest of the Baboons. Smith relates, that a female Mandrill was given to him which was not above six months old, and had then attained the size of an adult Baboon: he likewise acquired that these animals walk always erect; that they do not cry, like the human species; that they have a violent passion for the female sex; that they never fail to seize them if they find them within their reach.

This animal is equally remarkable for its variety of colour, its singularity of appearance, its immense strength, and its unconquerable savageness. "Under its projective

* Of all the Monkeys, these have the longest muzzle. The nose is very short. They are also extremely brutal and ferocious. Only one species is known.—Ouvier.

d," says Mr. Bingley, "are two small and vivid eyes, set so near to each other that their position alone gives to the physiognomy an air of ferocity. An enormous nose, indicative of the most brutal passions, terminates in a broad and rounded extremity of a fiery red colour, from which continually oozes a mucous humour. The cheeks, greatly swollen and deeply furrowed, are naked, and of a pearly blue colour. A narrow blood-coloured ridge extends down the middle of the face, and terminates in the nose." Around the neck the hair is very long. On the sides of the head it joins that at the top, and the whole terminates in a somewhat pointed form. Each hair of the body is annular, with black and yellow; so that the whole fur has a mottled brown hue.

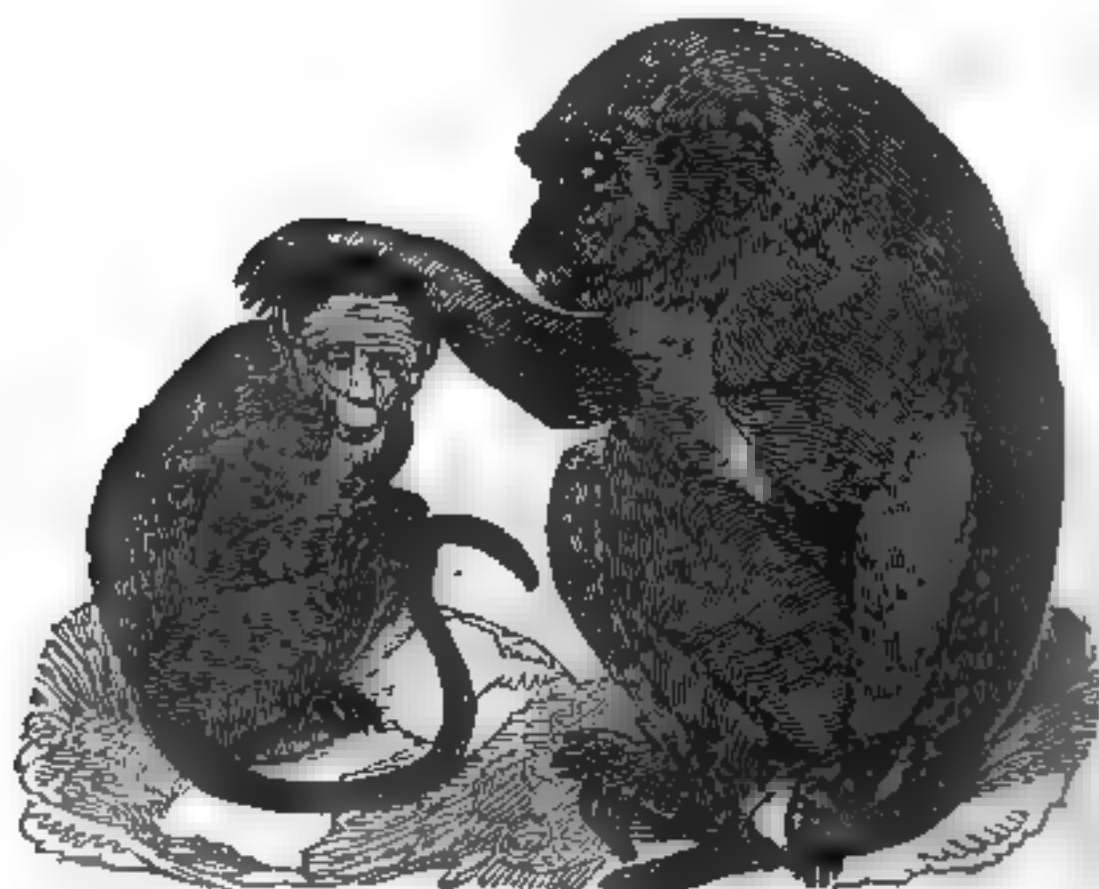


One of these animals was lately exhibited at Charing Cross, London. He sometimes sat in a chair, smoked a

pipe, drank spirits and water, and appeared to understand every look and gesture of his keeper. He had a very contented look, and passed under the name of "Happy Jerry."

When standing upright, the Mandrill is in height from three feet and a half to five feet. It is to be found on the Gold Coast, in several other parts of Africa, and also in the East Indies and the Indian Archipelago. Its voice bears some resemblance to the roaring of a lion. No art or kindness can in the least subdue its brutal propensities; and its great strength renders it an object of perpetual dread to its keepers. Yet it is not, strictly speaking, a carnivorous animal; for, though it will eat meat that has been cooked, its usual food is fruits and nuts.

THE PIG-FACED BABOON.



THIS animal, which is also called the Chacena, is a native of Africa, and was formerly exceedingly troublesome to the settlers in the neighbourhood of the Cape of Good Hope.

al colour is a dusky hue bordering upon black. is from two to three feet in length, and the tail is at, when the animal stands on all fours, it does the ground. The forehead of this species is re-depressed; the nose is much prolonged. The e Pig-faced Baboon has a near resemblance to f a dog.

THE BONNETTED MONKEY.

al which is represented on the same wood cut Pig-faced Baboon is the Bonnetted Monkey, call-hinese Bonnet, by Buffon. This name it derives circumstance of the hair on the upper part of the erging horizontally from a central point towards nary circumference; thus looking not unlike the onnet of a Chinese. Its body is from twelve to ches long, and its tail quite as much. The whole ce is hairless, and the forehead, which is strongly , is nearly naked. The colour of the upper part dy is a uniform yellowish gray; the under surface bluish tinge from the skin, which has but a thin Eastern Asia is the native country of this spe-

THE DOG-FACED BABOON.

mal, which is between four and five feet high, and various parts of Africa and Asia, is distinguished per tail than the rest of its kind; in this respect it bear some affinity to the Monkey, and has been nder that denomination by several naturalists. Its urge, muzzle long and thick, eyes small, face na-of an olive colour; the hair on its forehead is sep-the middle, and hangs down on each side of the m thence down its back as far as its waist it is

long and shaggy, of a bluish gray colour, freckled with dark spots; the hair on the lower part of the body is short;



and its buttocks are bare and red. It lives in troops, commits great depredations in gardens and cultivated grounds, and is exceedingly strong, vicious, and impudent.

THE URSINE BABOON

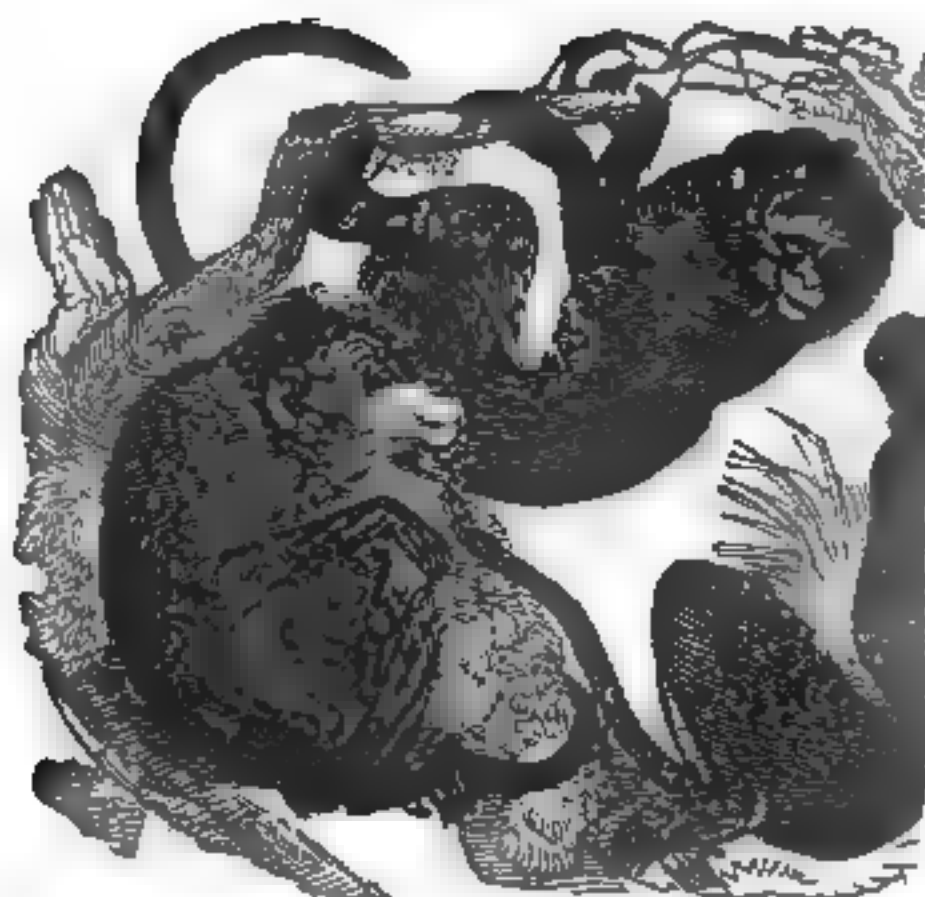
Is not unlike the last, but rather less. Its nose is long, head large, ears short, forehead high and prominent, terminating in a ridge; the body thick and strong, covered with long dusky hair, which gives it the appearance of a young bear; its tail is half the length of its body; its buttocks red.—This animal is very numerous about the Cape of Good Hope. Troops of them make expeditions for the sake of plunder, in which, to prevent being surprised, they place a sentinel, which, upon sight of a man, gives a loud yell; when the whole troop retreats with the greatest precipitation; the young ones leaping on the backs of their parents, and clinging closely to them. When the Ursine Baboon sees a single person sitting and eating in the fields, it will steal behind him, snatch his food from him, retire to a little distance, and begin to devour it; now and then holding it out in its paws towards the loser, with laughable grimaces, as if offering to restore the prize.

ned, and will then guard its master's property sagacity and fidelity of a dog.

THE WANDEROO AND THE LOANDO.

Two animals seem to be but one and the same have, therefore, here preserved the two names in Ceylon, as they at least form two distinct. The body of the Wanderoo is covered with black hairs, and he has a long white head of monstrous white beard: the body of the Loan-contrary, is covered with whitish hairs, but he has a large head of hair and beard. There is still some variety found in the same country, which may, possibly, be a common stock of the other two, because it is of a whitish colour over its body, with the like hair and beard. These animals are baboons, and we have imagined, Monkeys, as they have all the appearance as well in shape as in disposition, and are of savage nature, and even more ferocious.

White Monkeys (says Forbin) are sometimes as large as a mastiff: they are more dangerous than dogs, they principally attack women, and often, after having brutally injured them, finish their cruelty by strangling them. Sometimes they even come to their houses; but the women, who are very jealous of their wives, take care to prevent their entrance into their habitations; and as they do not liking (as the chevalier humorously remarks) the manners or the figure of the paltry gallopers, they stand on their defence, and with clubs, or what arms they can provide, instead of answering blows, oblige their ugly suitors to return, not, however, without having damaged or plundered every thing they lay their hands on." It is, however, exceedingly remarkable that the white Monkey, here described, be of a different species as the Wanderoo.



Of the Monkeys figured in the above group are all young ones, the central figure is a young species of the *Cercopithecus* genus. The upper one is of a reddish brown, gradually fading away into a bluish tinge beneath. The monkey on the right hand of the cut appears to be a young Macaque. It is of a blackish brown above and of a bluish cast beneath, with the face nearly black. The left hand Monkey is, in all probability, a young *Cercopithecus pileatus* of M. Geoffroy St. Hilaire. Buffon gives the name of Guenon for it, at least, closely allied to the Bonnetted Monkey.

MACAQUE AND THE EGRET.

r Monkeys, with long tails, the Macaque
 t the Baboon ; its body being short and
 animal's ; its head thick, its snout broad,
 eeks wrinkled ; but it is bulkier and tall-
 · Monkeys. It is also so extremely ug-
 ll be looked upon as a smaller kind of
 id not differ in the tail, which is crook-
 tufted ; whereas that of the Baboon, in-
 ely short. This species is a native of
 outhern parts of Africa. It is numerous,
 ny varieties with respect to its size, col-
 on of the hair. The body of that de-
 quist was more than two feet long ; and
 ve seen were not above one foot and a
 we here term the *Egret*, because of the
 seems to be only a variety of the first,
 resembles, excepting the difference be-
 id some other slight varieties in the hair.
 tractable and docile ; but, independent
 h they diffuse around them, they are so
 en so hideous when they grimace, that
 them without horror and disgust. These
 ocks. Bosman relates, that they take a
 nd, under their arms, and one in their
 y go off with ; if the pursuit is hot, they
 1 under their arm, then that from their
 continued, they at last let fall that which
 cept in their mouths. In other respects,
 they examine the melon beds carefully,
 please them they throw away, and tear
 t, by this nicety, they do exceedingly
 any of the orchards and vineyards by

NATURAL HISTORY.

THE PATAS

Is a native of the same country, and is nearly size, as the macaque, the body being only some the face not so ugly, and the hair fairer. It is, brilliant a red, that the animal looks as if it w The face is of a flesh colour, and the ears length of this animal is about half a yard. I is called the Red Monkey. I am inclined t the Monkey spoken of by Marmol, and said colour of the wild cat, and to be a native of A a variety in the Patas species. These anima subtle as others of their kind, but are possess treme curiosity. "I have seen them (says Br from the top to the branches of very high t the vessels on the water, which they admired f and seemed diverted with what they had see ted their stations for their companions to b sight: some even threw the branches of th French, who returned their salute with s some were killed, others wounded, and the ground in the utmost consternation. O most hideous cries, while another was pi to throw at their enemies, and a third wer easing of nature into their hands, which f with vengeance to the spectators ; but pe how unequal the battle was, they desir retired."

THE MALBROUCK.

THESE animals are found in Bengal,* form us they plunder whole fields of

* Some later naturalists are of opin not a native of India, but of Africa.

anes ; and while one stands sentinel on a tree, the d themselves with the booty. But if the owner of or plantations appear to interrupt their depreda- faithful companion on the look out gives notice by *houp, houp, houp*, which the rest perfectly under- d all at once throwing down their plunder, which in their left hands, they scamper off upon three ng the remainder in their right, and save them- m their pursuers by climbing up trees, where their general abode. The females, even loaded r young ones, clasp them close to their breast, the others from branch to branch, and escape rest. When it happens they cannot find any pro- the fields they get on the tops of houses, and, hav- d off the tiles, do great damage to the inside. not eat a single thing without smelling at it for a e beforehand ; and when they have satisfied their hey put the remainder in the pouches on the sides heeks for the next day : they destroy the nests of d never fail to throw the eggs on the ground when it appetite or inclination to eat them.

ost formidable enemy these animals have is the ser- other animal of the forest being able to surprise they are so exceedingly swift and subtle, and imb up and seat themselves on the tops of the rees. "The Monkey," says a traveller, "has it in r to be master of the forest, for there are neither r lions which can dispute the possession with it : f animal it has to fear, and which attacks them ht and day, is the snake. There are some snakes forests of a prodigious size, which wind up the ere the Monkeys reside, [and, when they happen se them sleeping, swallow them whole before the mals have time to make a defence."

The Malbrouck has pouches on each side of and callosities on its posterior ; its tail is very as the body and head put together. The eyelids fleshy, and the face of an ash colour ; the ears thin, and of a flesh colour ; they have a list of on them, like the mona ; but in other parts are form colour, approaching towards a brown on parts of the body, and towards a gray on the goes on all fours, and is about a foot or a foot long from the snout to the insertion of the tail.

THE MANGABEY.

WE have seen two of this kind of Monkey : sent to us by the denomination of *Madagascar*. They are however, most probably, natives of the coast of Africa. They are easily distinguished by their apparent character. The Mangabey has its eyes and of a striking whiteness. It has pouches on of its cheeks, and callosities on its posteriors. It is long as the head and body put together, and it has a prominent roll of hair over its eyes. Its snout is thick ; its eyebrows rough and bristly, its ears black and naked ; the hair of the upper parts of its body is those below gray. There is a variety in this species, being of a uniform colour, and others having white hair round the neck, and the form of a bat in their jaws. They walk on all fours, and are about a half long from the snout to the tail. From the peculiarity of their eyelids, they have the name of Eyelid Monkey.

THE MONA, VARIED, OR COMMON MONKEY

Is the most common of the Monkey tribe. We have seen many of them alive for many years. This alone is an

it is not a native of the hot countries of Africa and . In fact, it is met with in Barbary, Arabia, Persia, The visage of this animal is of a brown hue, with a of white beard, mixed with yellow and a little black ; ack is red and black ; the belly and the hind parts of highs and legs whitish, though the fore parts of the last are of a black colour: the tail is of an ash-colour, ed with two white spots, one on each side, at its in-

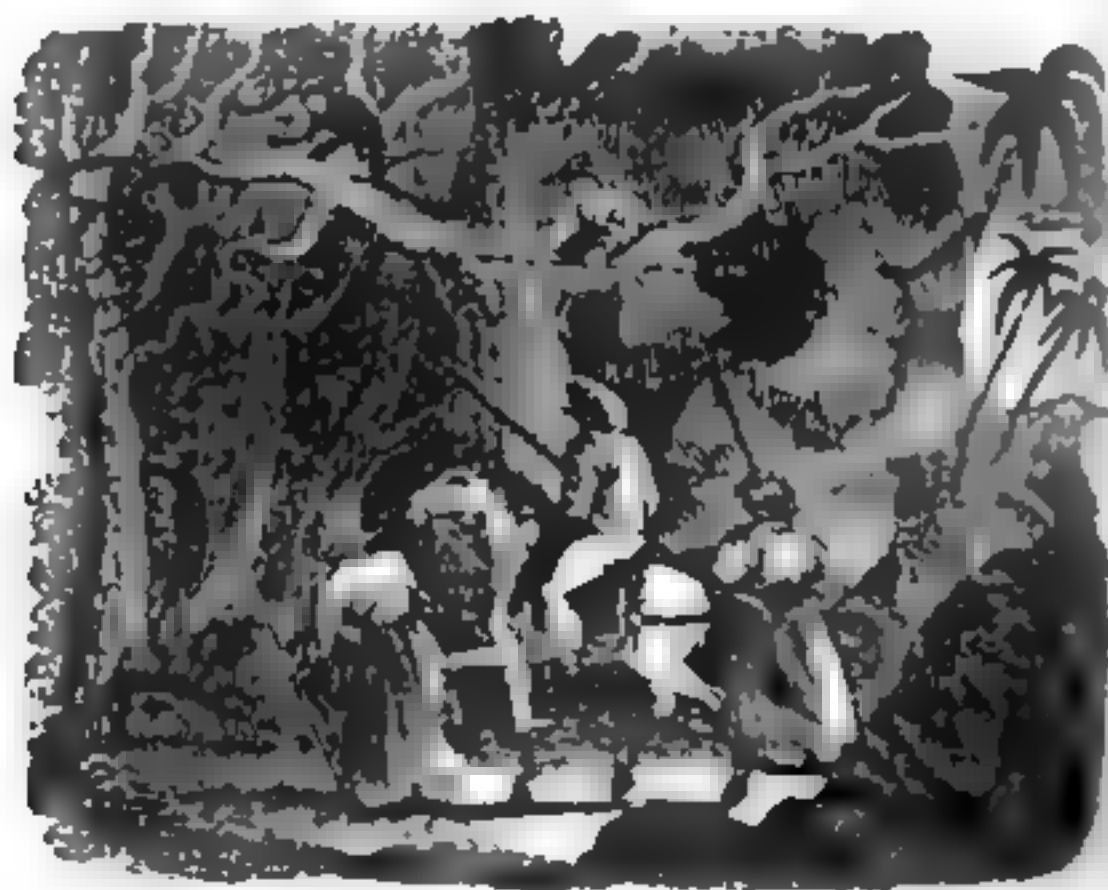


On its forehead the hair is of a gray colour, in form of a crescent, and between the eyes and the ears black stripe, as there is from the ears, and shoulders, round.

In general, the disposition of the Monkey is much more gentle than the baboon, and not so sullen as the ape: it is extravagantly spirited, but not ferocious, being docile through fear. The Mona is, in particular, susceptible of affection, and even attached to those persons who take care of it. That which we brought up would suffer itself to be stroked and handled by those it knew, but would often bite strangers. It was chained, but was very desirous

of liberty; for, when it either broke its chain or got loose, it would run away, and would not suffer itself to be touched by any other person than its master. It ate every thing that was offered to it, especially flesh, bread, and its natural food, fruits. The Mona is about a foot and a half in length.

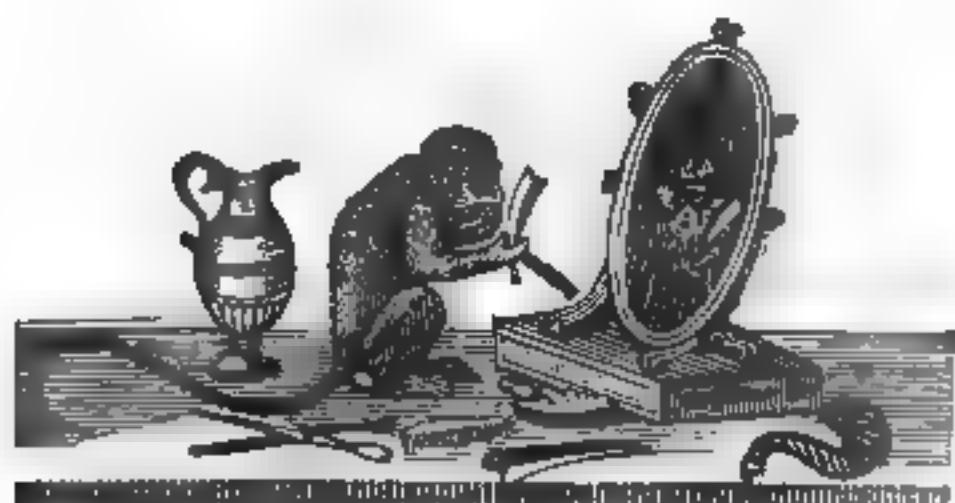
Major Denham furnishes the following extract :—
 - We moved for Woodie about eight, accompanied by two Arabs of Boo Saif. I left the Kafilah, and proceeded a little to the westward, making a parallel movement with the camels. Birds of the most beautiful plumage were perched on every tree. Guinea fowls were in flocks of eighty or one hundred; and several Monkeys chattered at us so impudently, that, separating one from the rest, we chased him for nearly half an hour: he did not run very fast, or straight forward, but was constantly doubling and



turning, with his head over his shoulder, to see who was close to him. He was a handsome fellow, of light brown colour, and black about the muzzle."

The following anecdote we relate on the authority of Mr. Gray, who is well known as proprietor of many of the animals that have been lately exhibited in Boston. About five or six years ago, there was a Monkey attached to the collection then exhibiting in Boston. He was particularly

and mischievous, and though generally chained, often broke away, and in this gave his keepers trouble. He was greatly disposed to imitate every he saw done, and on one occasion, on attempting to cut himself, cut his chin severely with a razor.



In length this Monkey seemed determined to commit suicide by hanging himself. His operations attracted the attention of Mr. Gray, who, by way of caution, expressed his fears to the keeper, that the animal would succeed in what seemed to be his design. About this time, while the keepers were absent, the Monkey escaped with the chain round his neck. One end of this he fastened to a beam of the building, and making a noose of the chain, which he put around his neck, swung off, and was soon after actually dead from strangulation.

THE CALLITRIX, OR GREEN MONKEY,

It has pouches on each side of its cheeks, and callosities on its posteriors: the tail is much longer than the body, and is terminated by a brush of yellow hair. Its head is small, its snout long, and its face and ears of a reddish colour, with some long yellow hairs on the cheeks; a narrow stripe instead of eyebrows, formed of long black hairs: above, it is of a fine olive green colour, with

little yellow mixed with it ; and beneath, it is white : it walks on all fours ; and the length including its head, is about fifteen inches.

The *Callitrix* is found in Senegal, as well as in the neighbouring islands. Dr. Adams says that the environs of the woods of Podor on the banks of the Senegal are filled with green Monkeys. “ I was covered these animals (says he), by their breaking branches of trees, and throwing them down on me, for they were so very quiet and nimble in their motions that I could scarcely hear them. I did not walk far, before I met three of them without in the least terrifying any of them. However, when numbers felt themselves wounded, they began to retreat, some concealing themselves behind the branches, and others descending and running. The greatest number leaped from the top of one tree to another. During this little fray, I killed about three in less than an hour, without any of them uttering a single cry, although they made an appearance of being angry at me.”

THE MUSTACHE

SEEMS to be a native of the same country as the *Callitrix*. It is, probably, the same animal as the *Guinea* Monkey, called *White Nose*, from its upper lip being white, whereas all the rest of its face is of a different colour. It seems to be one of the most beautiful of the

The *Mustache* has pouches on each side of its face and callosities on its posteriors. The tail is longer than the head and body together. Its fur is blue, with a great and broad white mark in the shape of a chevron under the nose, which is naked, and a slight edging of black hair both on the upper and lower lip. Its body is short and compact. The

of a bright yellow colour below the ears, and of bristly hair upon the head; the hair of the greenish cast, and the breast and belly of an It walks on all fours, and is about a foot long. is subject to a periodical emanation.

THE TALAPOIN

small animal; its name indicates it to be a native of the East, and other eastern provinces of Asia, but we know positively as to that point; however, it is certainly native of the Old Continent, and not found anywhere in the New, from the pouches on each side of its chest, and the callosities on its posteriors, which characters are common to the sagoins, nor sapajous, which are the natives of the New World which we can compare it to the Monkey.

Linnaeus has given a figure and description of a Monkey, which he calls the Black Monkey, of a moderate size, and which is said to approach nearer the Talapoin than any of the others. It is also, probably, the same species of Black Monkey which Bosman speaks of, by the name of *Bourda*, the skin of which, he informs us, makes a good covering for a gun-barrel, however, is of opinion, that the Talapoin is the same animal as the *malbrouck* in its youthful state.

THE DOUC

among the class of animals called Apes, Baboons, and Monkeys. This animal, without belonging to any of these three precisely, yet partakes of them all: of the Monkey, in the length of its tail; of the Baboon, in the flatness of its face. It has, however, a very particular character, by which it seems to form a chasm between the Monkey and the sapajou. The families of animals differ between themselves,

NATURAL HISTORY.

Monkey having fleshy posteriors, and all the sapajoung them covered with hair. The Douc is the monkey which has hairy posteriors like the sapajou: it resembles it also by the flatness of the snout; but it is entirely nearer the Monkey than the sapajou, by its long tail and by other very essential characters. Its variegated skin seems to indicate the ambiguity of its nature, and at the same time distinguishes its species in a very evident manner.

The Douc has no callosities on its posteriors, and is clothed all over with hair: its tail, though long, is not so long as its body and head put together; its face is covered with reddish down, with a white beard; the ears are naked, and of the same colour as the face; the lips brown, as are the orbits of the eyes; the colour of the hair is very bright, and very variegated; it has a collar of a purple colour round its neck; its forehead, body, and arms, are white; its hind legs are of a red chestnut; it is black above the forehead and the upper part of the arms; the parts below the body are of an ash-colour; the tail is white as well as the bottom of the loins; it more frequently walks on two feet than on four; and it is three feet and a half or four feet high when it is upright.

Travellers inform us, that the larger Monkeys of the southern parts of Asia produce bezoar in their stomachs which is superior to that of the bezoar of goats and antelopes. These larger Monkeys of the southern part of India, are the wanderoo and the Douc. We therefore suppose that we must refer the production of the bezoar to this species. It is pretended, that this Monkey is always of a round form, whereas the other bezoar has different sizes and figures.

MONKEY TRIBE IN AMERICA.

-handed animals which we have given a denomination which we have comprehended under the names of Apes, Baboons, and Monkeys, exclusively to the Old Continent: and all those which are spoken of, are, on the contrary, only found in the New World. We here distinguish them by two genera, as we can divide them into two classes; the first of the SAPAJOU, and the second into the SA- these animals have their feet nearly like those of the Old Monkey kind, but they differ from the Apes. The sapajou has a very long tail, which is used to seize and lay hold of things, and by which it hangs from the branches of trees. The tail of the Ape, on the contrary, is proportionably longer than that of the sapajou, but is weak and straight, so that they cannot make use of it either to lay hold of any thing, or to assist in the art of climbing: this difference is so very apparent, that it is alone sufficient to distinguish the sapajou from the Ape.

3. AND THE ALOUATO OR HOWLING MONKEY, the largest of these animals belonging to the New World, they surpass the size of the largest Monkey, and are nearly the size of the baboon: they have a long tail, and are of the same family as the sapajou, in which they are distinct rank, not only with regard to size, but also to their voice, which sounds like a drum, or, as others say, like the grunting of immense herds of swine, and may be heard at a very great distance. From the excessive noise they make they have obtained the name of the Howling Monkey. Marcgrave informs us, "that every evening the *Warines* and the *Alouatos* assem-

ble in the woods ; that one among them seats himself on an elevated place, makes a sign with his hand to the rest to seat themselves round him ; as soon as he sees them all seated, he begins an oration with so quick and loud a voice, that, at a distance, it might be imagined they were all making a noise together. During the whole discourse, the rest keep a profound silence, and when it is ended, he makes a signal to the rest to answer him, and immediately they all set up a cry together, till by another sign with his hand he orders them to be silent : when they are immediately obedient and quiet. Then the first renews his discourse, or his song, which when finished, and the others have paid the utmost attention to it, the whole assembly breaks up and separates." This singular noise is made by the instrumentality of a long bony process in the throat. According to the same author, " the face of the Warine is broad, the eyes black and sparkling, the ears short and round, the tail naked at the extremity, with which it holds firmly whatever it encircles : the hair of the body is black, long, and glossy ; it is much longer under the chin, which forms a kind of round beard : the hair on the hands, feet, and a part of the tail, is brown. The male is of the same colour as the female, and only differs from it in being a little larger. The females carry their young on their backs, and thus loaded leap from branch to branch, and from tree to tree. The young one clasps the narrowest part of the body of the mother with its hands and arms, and thus holds itself firmly fastened, whatever motion its parent makes. In other respects, these animals are wild and mischievous : they can neither be tamed nor subdued, and bite dreadfully. As they live only on fruit, grain, and some insects, their flesh is not bad eating. It is like that of the hare, but a little sweetish, for which reason a good quantity of salt is put to that which is roasted : the fat is

the that of the capon, and of a very fine flavour. They fasten upon the branches of trees, and stick their hands, feet, or tail, wherever they touch, and renders it very difficult to take them, even after they are hot, for if they are only wounded, they will not get to the ground, but cling to the branch, and remain on there they were shot, till they drop off by putrefaction. What appears singular is, that the moment one is wounded, the rest assemble round, and clap their hands into the wound, as if they were desirous of its depth. If the blood then flows in any quantity, they keep it shut up, while others get leaves, which they tear, and thrust into the orifice. The females bring forth one at a time."

The alouato has the same characters as the Warine, but seems to differ from it in having no beard, and a coloured hair, whereas that of the Warine is black.

THE COAITA.

The warine and the alouato, the Coaita, or Four-Monkey, is the largest of the sapajous. There are two live at the Duke of Bouillon's, where, by its kind and forward caresses, it merited the affection of those who had it under their care; but in spite of the constant attention paid to it, it could not resist the contagion of the year 1764. It differs greatly in disposition from the warine and the alouato, which are wild and ferocious. It also differs from them in having but four fingers, and no thumb to the fore paws: by this character and its holding tail, it is easily distinguished from any other kind. In the use of their tail these animals are very dexterous. They can pick up with it even small bits of wood; and M. Audebert tells us, that some of the species carry hay in its tail to make it

bed, and move and spread it about as easily as an elephant could have done with his trunk.

In climbing, too, this member is of great use. "There are (says Dampier) in the Isthmus of America, numbers of Monkeys, some of which are white, but the most are black—some have beards, others none. These Monkeys are very droll, and performed a thousand grotesque postures as we traversed in the woods. When they are unable to leap from one tree to another, on account of the distance, or the tree being separated by a river, their dexterity is very surprising. The whole family form a kind of chain, locking tail in tail, or hand in hand, and one of them holding the branch above, the rest swing down, balancing to and fro like a pendulum, until the undermost is enabled to catch hold of the lower branches of some neighbouring tree. When the hold is fixed below, the Monkey lets go that which was above, and thus comes undermost in turn; but, creeping up along the chain, attains the next branches of the tree like the rest; and thus, they all take possession without ever coming to the ground."

They have the address to break the shell of the oyster to eat them. They generally produce only one or two young ones at a time, which they carry upon their backs; they feed upon fish, worms, and insects, but fruit is their general food, and they grow fat when it is ripe, when, it is said, their flesh is good and exquisite eating.

The Coaita is about a foot and a half long, and its tail is longer than the head and body measured together; it goes on all fours.

THE SAJOU, OR CAPUCHIN MONKEY.

WE are acquainted with two varieties in this species; Brown Sajou, commonly called the *Capuchin Monkey*, and the Gray Sajou, which only differs from the other

colour of its hair; they are both lively, active, and very sing by their tricks and nimbleness. They are, however, fantastical in their tastes and affections: they seem to have a strong inclination for some people, and as great aversion for others. They are natives of French Guiana.

They usually live in troops of from twenty to forty individuals. They often whistle, and when they are enraged they shake their heads violently, and utter, in a plaintive tone, the syllables *Pi, ca, rou*.

THE SAI, OR WEEPER.

I have seen two of these animals, which seem to make a variety in the species. The hair of the first is of a deep brown; the hair of the second, which we have called the *red-throated Sai*, is white on the breast, neck, ears, and

Travellers have described these animals by the name of *Howlers*, from their plaintive moan. Others have called them *Musk Monkeys*, from their having, like the racoon, that peculiar smell. They belong to the same family, as they have a holding tail: they have only one litter, and bring forth but one or two at a time. They are gentle, docile, and so timorous, that their common cry, which resembles that of the cat, is dwindled down to a mere sighing when they are threatened. Their food, in this climate, is principally snails and beetles, which they prefer before any other; but in their native country of Brazil, they chiefly live upon grain, and the wild fruit they pluck from the trees, whence they very seldom descend till they have reached their habitation of its treasure.

THE SIAMIRI

It is generally known by the name of the *Golden, Orange-red, or Yellow Sapajou*. It is common in Guiana, where it is called *Camiri* by the natives. By its air, size,

the brilliant colour of its coat, the fulness and brightness of its eyes, and its small, round visage, the Siamiri has ever taken the lead of every other sapajou: it is, in fact, the most beautiful and delicate of the kind, and the most difficult to transport and preserve in other countries. Its tail, without being absolutely useless and weak, like that of the sagoin, is also not so muscular as that of the sapajou: its tail may be said to be but half-holding; and though it makes use of it to climb up trees, yet it can neither strongly hold, nor firmly fix itself with it. It is scarcely more than ten or eleven inches in length. It sits upright on its hinder feet with great ease: but it walks commonly on all fours.

Captain Stedman tells us, that he daily saw them passing along the sides of the river, in regular order, with their young at their backs, looking not unlike small knapsacks. The foremost of them leaps from the extremity of one bough to that of another, which is often at a surprising distance, and so active are these animals, and so well do they measure the intervening space, that he never misses his aim. All the rest follow him in succession; and even the females, burthened as they are with the young ones, which cling closely to the mother's back, perform the same leap with equal safety.

THE SAKI,

COMMONLY called the *Fox-tailed Monkey*, from its tail being clothed with very long hair, is the largest of the sagoin kind, being about seventeen inches long; whereas, the size of the five other sagoins is not above nine or ten. The Saki has very long hair on its body, and still longer on its tail. Its face is red, and covered with a whitish down. It is a native of Guiana, and lives in the woods, but is rare. The female brings forth but one offspring at a time.

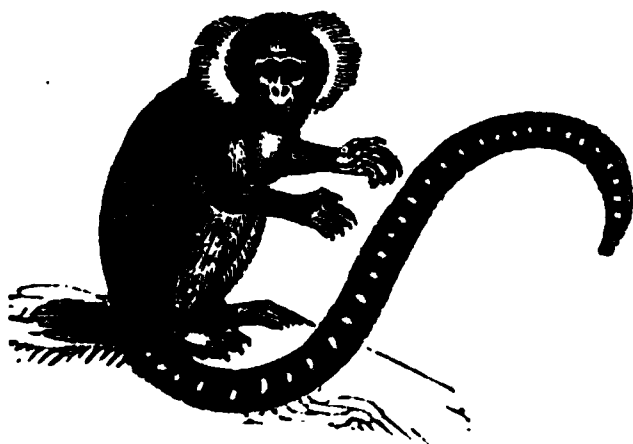
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THE TAMARIN, OR GREAT-EARED MONKEY.

nimal, which is a native of the hottest parts of America, is about the size of a squirrel, and has a face, of a swarthy flesh colour; its upper lip some-
divided; its ears are very large and erect; its hair shaggy, and of a black colour: the hands and feet
vered with orange-coloured hair, very fine and
; its nails are long and crooked; and the tail is
clothed with short hair, and twice the length of its

It is a lively, pleasant animal; easily tamed; but so
e, that it cannot bear a removal to a less temperate
).

THE WISTITI, OR STRIATED MONKEY.



ame of this animal is taken from the sound of its

It is smaller than the tamarin, being not above
hes long, and its tail more than double that length,
is annulated black and white, like the macaque. Its
naked, and of a flesh colour. It has two very sin-
ufts of long white hair on the fore part of the ears,
although very large, cannot be seen by looking at
l face of this animal. Mr. Edwards says, that, when
good health, it has much hair and tufted; that one
e which he saw, and which was healthy, fed on sev-

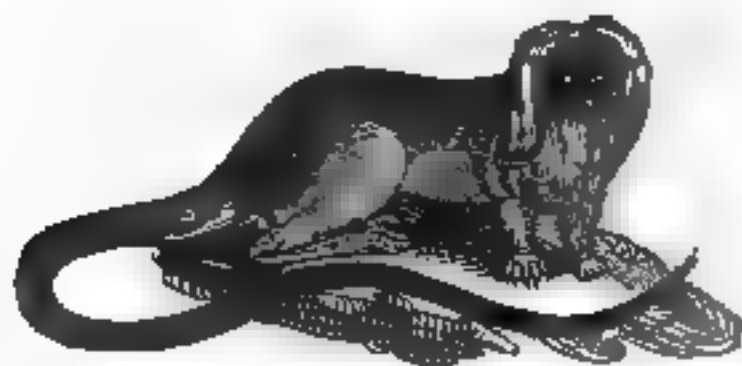
eral things, as biscuits, fruit, pulse, insects, snails; and, being one day unchained, he struck at a little gold fish which was in a glass globe, killed it, and devoured it with the greatest avidity; that afterwards, some small eels being put before him, he was frightened when they twisted about his neck, but that he soon conquered and ate them. It is a great enemy to cats. These animals, when young, have an ugly appearance, having scarcely any hair on their bodies. They cling closely to the teats of their dam; and as they grow older, they fix themselves on her back or shoulders; when she is weary of carrying them, she releases herself by rubbing against the wall.

The Striated Monkey is of a hardy nature, and has sometimes produced young ones in Europe, even as far to the north as Paris. Most of the individuals have a somewhat musky smell. The voice is a kind of shrill hissing whistle.

THE MARIKINA

Is sufficiently known by the vulgar name of the Small Lion Monkey. It is about eight inches long, and has a small tuft of hair at the end of the tail; its hair is tufted, long, soft, and glossy; the head is round; the face is brown; the eyes red; the ears round, naked, and concealed under the long hair which encompasses the face. This hair is of a bright red; that on the body and tail of a very pale yellow, approaching towards white. This animal has the same manners, the same vivacity, and the same inclination as other sagoins, and seems to be of a more robust temperament. We have seen one which lived five or six years at Paris, by the care alone of keeping it, during winter, in a chamber wherein a fire was kept every day. It is a native of Guiana and Brazil, especially in the vicinity of Rio Janeiro, and is a favourite pet of the Creoles.

THE PINCH, OR RED-TAILED MONKEY,



but nine inches long; and its tail is as long again. remarkable for a kind of white and striped hair on top and sides of the head; its face is black, shaded by all gray down; its eyes are black; its tail of a bright red at its insertion, and even as far as half its length, it changes to a deep brown. The hair of the upper part of the body is of a brown colour; that of the breast, hands, and feet is white; the skin is black, even when covered with white hair; its throat is naked, and like its face; its voice is soft, and resembles more the chirping of a little bird than the cry of an animal; it is very delicate, and cannot be transported from America to Europe, without the greatest precaution.

THE MICO.

We owe the knowledge of this animal to M. de la Condamine, and shall therefore give this author's account of his Voyage up the Amazons River. "The Mico presented to the governor of Para made me a present of, was the only one of its kind that had been seen in the country. The hair of its body was of the most beautiful silver colour; its tail glossy, and approaching to black. It had no more remarkable singularity; its ears, jaws, and feet were tinged with so bright a vermilion as scarcely to be thought natural. I have had it a year; and it

was alive at the time I was writing this account, almost within sight of the French coast, where I hoped to have brought it alive ; but, notwithstanding the continual precautions that I took to preserve it from the cold, the rigour of the season probably killed it."

CHAP. XXII.

*The Tartarian Cow....The Tolai....The Zisel....The Zensi
...The Pouch....The Perouasca....The Souslik....The Golden-coloured Mole....The White Water Rat....The Guinea Hog....The Wild Boar of Cape Verd....The Mexican Wolf....The Alco....The Tayra....The Philander of Surinam....The Akouchi....The Tucan....The Brazilian Field Mouse....The Aperea....The Tapeti....The Juda Goat....The Kanguroo....The Silver-haired Kanguroo....The Kanguroo Rat....The Wombach....The Duck-billed Platypus.*

THE TARTARIAN COW.

MR. GMELIN, in the new Memoirs of the Royal Academy at Petersburg, has given the description of this animal, which seems, at first sight, to be a quite different species from all those we have spoken of under the article of Buffalo. "This cow," says he, "which I saw alive, and had painted in Siberia, came from Calmuchia, and was about the length of two Russian ells and a half; by which model we may judge of the other dimensions. The body resembles that of the common cow; the hair on the body is black, except on the forehead and spine of the back, where it is white. The neck is covered with a mane, and all the rest of the body with a very long hair, which descends to the knees, so that the feet appear very short; the back is

l in the form of a hunch ; the tail resembles that of a , white and well clothed with hair ; the fore feet are , and the hinder ones white ; there are two tufts of hair, one before and the other behind. The excre- s are of a more solid nature than those of the common and it grunts like a hog. It is wild, and even fe- us ; for, excepting the man who feeds it, it butts all that come near it with its head ; and it dislikes the any of domestic cows." This animal, which is called 'ack, lives wild in the mountains of Thibet, and has domesticated by the Mongols. Its tail is 'used as a ard by the Oriental nations.

THE TOLAI.

animal, which is very common near Baikal Lake, in ury, is in size between a hare and a rabbit, the latter rich it resembles in shape, quality, smell, and colour, lso in the habit of burrowing in the earth to conceal . It differs only in the tail, which is considerably r than that of the rabbit, and is black above and : underneath. Its head and back are a pale gray, led with brown ; the breast and under part of the are white, as are also the muzzle and round the eyes.

THE ZISEL.

animal, which is also called the Earless Marmot, is er than the hamster : its body is long and slender, he weasel ; whereas, that of the hamster is thick and act, like that of the rat. It has no external ears, but auditory passages concealed under the hair. The is of a grayer, or of a more uniform colour, than the ter ; and the latter is marked in the fore part of its with three large white spots on each side. These ences, joined to that of their not mixing together,

though natives of the same country, are sufficient to leave us not the least room to doubt of their being two different species. It inhabits Russia, as far as Kamtschatka, the islands between Asia and America ; it is found also in Persia and China, but rarely in any part of Europe, except Russia. It never frequents bogs and woods, but dwells in open, high, dry, and uncultivated places, and prefers to dig in sandy and loamy soils, near the high roads. Each individual has its separate burrow, in which it lays up its store of winter provision. During the great severity of the frost it becomes torpid. In size they vary considerably ; some being as large as the marmot, others no bigger than the water vole. Their colour is as various ; but generally it is a yellowish white on the upper parts, and dirty white on the belly. When the fur is varied with waves or small spots of white, the animal is the Souslik, described by Buffon in a subsequent page of this chapter.

THE ZEMNI.

THERE is another animal in Poland and Russia, which is called *ziemni*, or *zemni*, of the same race as the *ziesel*, but larger, stronger, and more mischievous. It is somewhat smaller than the domestic cat ; its head is large, its body slender, and its ears short and round. These have four great incisive teeth : the two in the lower jaw are thinner as long as the two in the upper. The feet are very short and hairy, divided into five toes, and armed with crooked claws ; the hair is soft, short, and of a mouse gray colour ; the tail moderately large ; its eyes small and hid, like those of the mole. Its disposition and habits are nearly the same as those of the hamster and *ziesel* ; it is dangerous ; it eats greedily, and plunders orchards and gardens ; it burrows ; and lives upon grain, fruit, and pulse, which it stores in magazines for its winter support. Pennant names this animal the Podolian Marmot.

THE POUÇ,

also the Surmulot, is larger than the domestic ; its snout is long ; its fur is gray, with brown d white beneath ; its tail is almost as long as its burrows, and commits depredations in the gar-

Though not web-footed, it swims well. . There numbers near Suraz and in Volhinia, that nitants were obliged to abandon the culture of lens. Its native country is India, whence it was d into France in 1750, and has since been very in the seaports.

THE PEROUASCA,

he Russians call *Pereviaska*, and the Polanders *ta* (a name we may translate the *cinctured weasel*),

large as a polecat, covered with a whitish hair, ely striped of a reddish colour, which stripes ap- o many girdles. It lives in the woods, and bur- he earth ; its skin is sought after, and makes a itiful fur.

THE SOUSLIK.

is found at Casan, and in the provinces which the a pervades, a small animal, called *Souslik* in the tongue, of which very beautiful furs are made. short, like the field mouse : but what distinguish- that and every other rat, is its coat, which is of hue, sprinkled with small spots of a glossy and hite colour : these little spots are exceedingly a small distance from each other ; they are more upon the loins of this animal than on the shoul- head. "The rats called Sousliks," says M. San- re taken in great numbers on the salt vessels in

the river Kama, which descends from Salikamsi, the salt pits are, and falls into the Volga below Sim. The Volga, from Simbuski to Somtoff, is covered with salt vessels; and these animals are taken on the banks and the borders of those rivers: their name is *Sardis*, *dainty-mouthed*, because they are very fond of salt.

THE GOLDEN-COLOURED MOLE

NOT to omit any animals that belong to the North, we shall take notice of a kind of mole found in Siberia, called the *Golden-Coloured Mole*, the species of which is very different from the ordinary mole, because the *Siberian* has no tail, and a short snout; only three toes to the fore feet, and four to the hinder; whereas, the common mole has five toes on every foot. The snout is shorter than that of the common mole; the nose naked; the head and body about four inches long; the fur above is varied with greyish green, golden and reddish copper colour, the lower is cinereous brown. Pennant calls it the *Siberian Mole*, but it is also found at the Cape of Good Hope.

THE WHITE WATER RAT.

THE European Water Rat is again seen in Canada, but its colour is different: its back only is brown; the rest of the body is white and brown: the head and snout are white as is the extremity of the tail: the hair seems softer and more glossy than that of the European Water Rat; but they are alike in every other respect; so that we cannot doubt but that these two animals are of the same species; the whiteness of the hair being produced by the coldness of the climate.

THE GUINEA HOG

Is nearly of the same figure as our hog, and about the same size as the Siam hog; that is to say, smaller than

or, or our hog. It is a native of Guinea, and has been transported into Brazil, where it has multiplied, as in every country; it is domestic and tame: its hair is red, and glossy; it has no bristles, not even on the tail only, and the crupper near the tail, are covered with longer hair than the rest of the body: its head is so large as that of our hog; and its ears are very small and turned backwards over its neck; its tail is as long, almost touching the ground; and it has no claws towards its extremity.

THE WILD BOAR OF CAPE VERD.

This is another hog, or Wild Boar in Africa, which is found from Cape Verd to Congo, and also in Madagascar. The number of its teeth, and enormous size of its two tusks of the upper jaw, it seems to be of a different breed, perhaps, of a different species, from every other hog, and approaches nearer the babiroussa. These tusks resemble ivory horns, rather than teeth; they are half a foot long and five inches round at the base, and are crooked like the horns of a bull. This animal resides principally in subterraneous recesses, which he digs with his snout and hoofs; he is exceedingly strong, and in his wild state of a savage nature.

THE MEXICAN WOLF

It has the same figure, the same appetites, and the same manners as the European or North American wolf; and nothing seems to prove them to be of one and the same species; its head, however, is larger, its neck thicker, and it is not so hairy; above the mouth, there are some bristles, but not so rough as those of the hedgehog; its body is covered with grayish hair, marked with some black spots; the head, which is of the same colour as the

body, is crossed with brown stripes ; and the forehead is adorned with fallow-coloured spots ; the ears are of a gray colour, like the head and body. There is a long spot, of a fallow colour, on the neck ; a second spot, like the first, on the breast ; and a third on the belly. The flank is marked with transversal lists, from the back to the belly. The tail is gray, and marked with a fallow spot on the middle ; the legs are striped, from top to bottom, of a gray and brown colour. This Wolf, as we observe, is the most beautiful of the kind, and its fur is greatly valued.

THE ALCO, OR MEXICAN DOG.

BESIDES the dogs, says Fernandez, which the Spaniards have transported into America, we meet with three other species there, which resemble ours, both in nature and manner, and which do not greatly differ from it in form. The first, and the longest of these American dogs, is that called *Xoloigtcuintli*. What is particularly remarkable in these animals, is, their being without hair, and only covered with a soft close skin, marked with yellow and blue spots. The second is clothed with hair, and, with respect to its size, sufficiently resembles our little Malta dogs. It is marked with white, black, and yellow ; it is singular and amusing by its deformity, having a hunched back, and an exceedingly short snout ; so that the head seems to shoot immediately out of the shoulders ; it is called *Micanens*, from the name of its country. The third kind of these dogs, called *Techichi*, sufficiently resembles our little dogs ; but its look is dull and savage. The Americans eat their flesh. The word *Alco* appears to be a general term.

THE TAYRA, OR GALERA,

Pennant calls the Guinea Weasel, is about the size of a small rabbit, and resembles the weasel or the marten. It burrows like those animals, and has its fore feet strong, and considerably shorter than the hinder feet. Its snout is elongated, a little pointed, and adorned with a whisker. The body is oblong, and greatly resembles that of a rat; it is covered with brown hair, some of which is pretty long, and in others much shorter. It is a native of Guinea, very common about the Negro villages, and exceedingly destructive to poultry.

THE PHILANDER OF SURINAM.

This animal belongs to the same climate, and is of a near affinity to the sariga, marmose, cayopolin, and phalanger. It has very sparkling eyes, surrounded with a circle of black brown hair. The body is covered with a soft hair, rather a kind of wool, of a reddish colour, which is fair on the back, and of a yellowish colour on the snout, forehead, belly, and feet. The feet resemble the hands of the monkey, the fore feet having four fingers and a thumb, with short and obtuse nails; whereas, only the thumb or great toe of the hinder feet is flat and obtuse, the rest being furnished with small, sharp claws. The young of these animals grunt somewhat like a pig: they get on the back of their dam, and fix themselves there, by fastening their claws on hers. In this situation, which is familiar to them, they are carried with as much safety as swiftness.

THE AKOUCHI

This animal is common in Guiana, and other parts of South America, and inhabits also St. Lucia and Grenada. It differs from the agouti by having a tail. The Akouchi is generally larger than the agouti; but its hair is not red, but olive.

THE TUCAN, OR MEXICAN SHREW,

Is a little larger than our mole, and, like that, is fat and fleshy, with such very short legs, that its belly touches the ground. Its tail is short; its nose sharp; its ears small and round; its eyes so very small, that they may be said to be useless; but differs from the mole in the colour of the hair, which is of a reddish hue, and by the number of toes, having only three to the fore feet, and four to those behind. It seems still farther to differ from it, by its flesh being good to eat. It burrows, and makes such a number of cavities, that travellers can scarce tread with safety. When it gets out of its hole, it knows not how to return, but begins to dig another.

THE FIELD MOUSE OF BRAZIL

Is considerably larger than ours, being about five inches from the extremity of the snout to the insertion of the tail, which is only two inches, and, consequently, much shorter in proportion than that of the common field mouse. Its snout is pointed, and its teeth very sharp.

THE APEREA.

THIS animal, which is found in Brazil and Paraguay, is neither a rabbit nor a rat; yet it seems to partake something of both. It is about a foot long, by seven inches circumference. The hair is of the same colour as a hare's, but white upon the belly. It has also, like the rabbit, a slit lip, large incisive teeth, and a whisker above the mouth; but its ears are rounded, like those of a rabbit. The fore legs are only three inches high; those behind are longer. The Aperia has got no tail; its flesh is like that of a rabbit, which it resembles in its method of living: it conceals itself in holes, but does not burrow like a rabbit.

It rather retires into the cavities of the rocks and stones. It is very easily taken. Lesson states it to be the Guinea- in its wild state.

THE TAPETI

Found in Brazil, and other parts of America. It resembles the European rabbit in figure, and the hare in size and colour; its ears are very long, and of the same shape; its face is red on the forehead, and whitish on the throat; they have a circle of hair round the neck: they are all white on the throat, breast, and belly; they have black legs, and whiskers like the rabbit, but have no tail. The Tapeti resembles the hare in its method of living, fecundity, and the quality of its flesh, which is excellent food. It lives in the fields, or woods, like the hare, and does not grow like the rabbit.

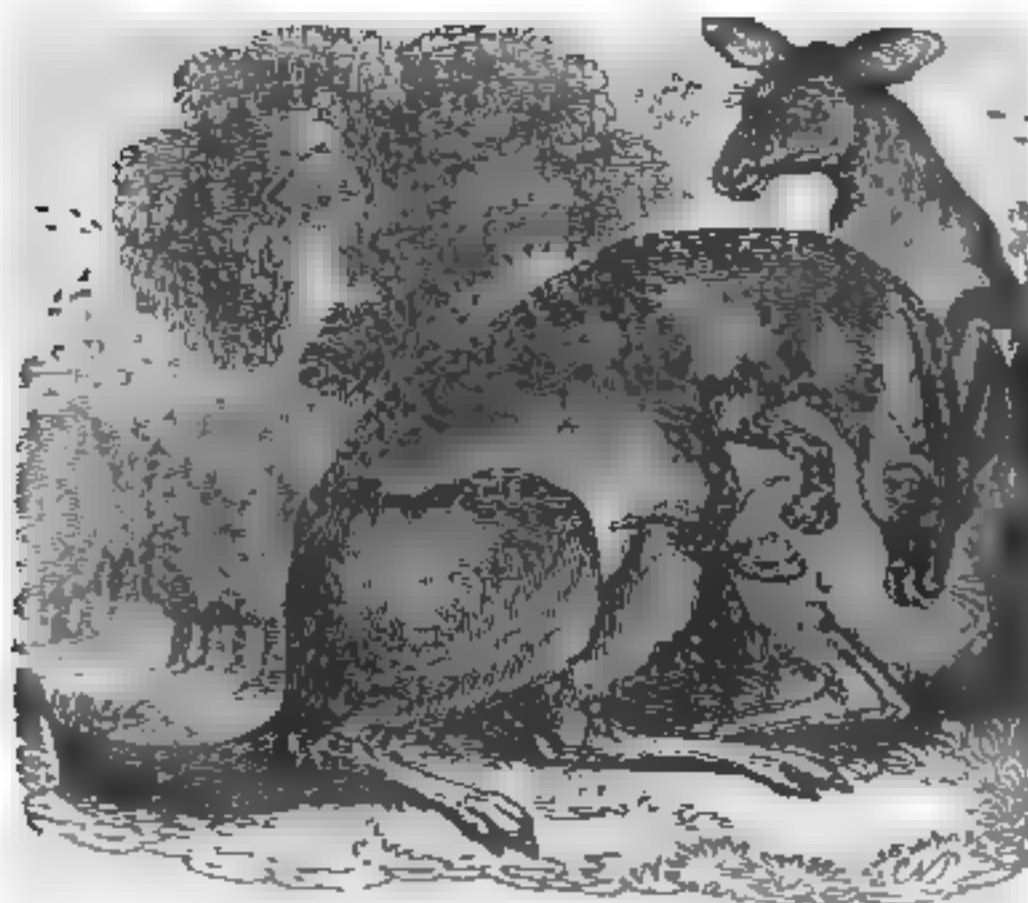
THE JUDA GOATS

They are considered by our author as only varieties of the common goat. One species has short, smooth, erect horns, curved a little forwards, and is about the size of a kid of a year old. The other is also of a dwarfish size, but of quite different horns. They are very thick, rounded on the upper surface, with two sharp edges below; and bent backwards, with a slight spiral twist downwards, outwards, and forwards.

THE KANGUROO.

There exist several species of the Kangaroo, all of which are natives of New Holland. The principal of these is the Great Kangaroo, which was first discovered in 1770, by some of the persons who accompanied Captain Cook. It often measures nine feet in length from the tip of the nose to the end of the tail, and, when full grown, weighs

two hundred pounds. The head and neck are very small while the lower parts gradually dilate to a very great size. The fore legs are hardly nineteen inches long, while the hinder ones, which are perfectly bare and callous below, measure three feet seven inches. The head bears a resemblance to that of the deer, having a mild and placid visage; the ears are moderately large and erect, the



full, and the mouth rather small. The general color pale brown, inclining to white underneath. From the great difference in length of the fore and hind legs the pace of this animal consists in vast springs, or bounds which are said at times to exceed twenty feet in length. It can with ease leap over an obstacle above nine feet high. In its state of rest, it sits erect on the whole of the hind feet, supporting itself by the base of the tail which is occasionally used as a weapon of defence, and of such prodigious strength as to be able to break the back of a man at a single blow. The female carries her

than one young one at a birth, which, when first brought forth, is not above an inch long, and is received in an abdominal pouch, that the female is furnished with, which conceals the teats, and serves as a receptacle to secure the young in time of danger.

THE SILVER-HAIRED KANGUROO

considerably smaller than the former, and distinguished by the delicacy of its limbs and the superior fineness of its

THE RAT KANGUROO

differs from the common species in being only the size of a rabbit. The colour is brown with long coarse hair, ash-colored beneath; the ears are more rounded, and there are only four toes on the fore feet. On each side of the lower lip are several long whiskers, which are wanting in the Great Kangaroo; the head is rather flattened sideways, and the general appearance of the animal is far less elegant and pleasing.

The habits of the Kangaroo have been recently described, with equal animation and fidelity, by Mr. Cunningham, in his amusing and valuable account of his Two Years' Residence in New South Wales.

Our largest animals (he says) are Kangaroos; all of which are fine eating, being clear of fat except about the ribs, tasting much like venison, and making most delicious roasts and steaks, the favourite dish being what is called a hamper, composed of steaks, and chopped tail, with a few slices of salt pork, stewed with a very small quantity of water, for a couple of hours in a close vessel. We have the Forest Kangaroo, of a gray colour, with a longish fur, inhabiting the forests; the Wallaroo, of a blackish colour,

with a coarse shaggy fur, inhabiting the hills ; and Kangaroo, with smooth, short, close fur, of a reddish (resembling considerably in fineness and texture the sea otter), inhabiting the open forests ; and all varieties attain the weight of two hundred pounds upwards when full grown. The Wallabee and Pad grow to about sixty pounds each, and inhabit the open and broken hilly country. The rock Kangaroo is small, living among the rockiest portions of the mountains ; while the Kangaroo rat, or, more properly, the kangaroo bit, is about the size of the smallest of the latter animal, and lodges in hollow trees, hopping along, like the other Kangaroos, with great speed, and affording sport in the chase. The Kangaroos make no use of their short fore legs except in grazing, when they rise upon them and their tail, bring their hind legs forward, nibbling upon all fours, pulling up occasionally their favourite plant with their fore paw, and sitting up erect upon their hind houghs and tail, while they slowly chew and nibble it, shifting it from paw to paw, like a cat retracting his repast on a juicy apple. When chased, they hop upon their hind legs, bounding onwards at an amazing rate, the tail wagging as they leap, and acting as a counterpoise to them for a balance. They will bound over gulches and down declivities, the distance of thirty yards, and over the tops of low brushwood ; so that, in such places, dogs stand very little chance with them ; but in open country soon tire them out. The dogs seize them generally by the hip, and throw them over ; then spring upon their throats and finish them. But few dogs attack a large Kangaroo singly, some of the two hundred weight size often hopping off with three or four dogs hanging about them ; and I was informed of one that had actually carried a man to some distance. When a dog

close to a large Kangaroo, it will often sit upon its tail haunches, and fight the dog, turning adroitly round round, so as always to face him, and pushing him off with the fore paws; or it will seize and hug him like a bear, ripping him up with the long sharp claw on its powerful hind leg. They are constantly indeed cutting, and killing, dogs with this terrible weapon, which will cut out the bowels at a single kick; and a large Kangaroo on this account, very dangerous even for a man to approach, when set at bay. The Kangaroo hunters immediately hamstring them when thrown, to prevent injury to themselves or the dogs; while the black natives give them a heavy blow over the loins with their waddie, which completely paralyzes their hind legs, as all the large nerves supplying these parts pass out there. The Kangaroo has by one young at a time, which you may see attached by its mouth to the nipple inside the mother's pouch, from a period it is the size of your thumb top, and as bare and shapen as a new-born mouse, until it attains the size of a poodle-dog, with a fine glossy coat of hair, ready to leap out and hop along after the mother. The young are attached to the nipple in somewhat the same way as the placenta of other animals is attached to the uterus, the mouth being contracted round the nipple, which swells out like a berry inside it, nourishing the foetus by means of absorption through this indirect channel, the mouth and nipple adhering so strongly that it requires considerable force to separate them. When the foetus arrives at sufficient age to suck, it drops off the nipple, and may then be said to be born, yet still continuing inside of the pouch, and sucking milk now through the ducts of that nipple from the external surface of which it formerly received a very different species of nourishment. The manner in which the young reach this pouch from the ovary,

and attach themselves to the nipple, is still, I believe, a mystery, as no communicative duct has yet been discovered, but the natives assert they are born in the pouch and that the mother places them there. It is an interesting sight to see the young Kangaroo pop its head out of the pouch when the mother is grazing, and nibble too at the herbage which she is passing over. When hard pressed the mother will stop suddenly, thrust her fore paws into her pouch, drag out the young one and throw it as far as she may hop lighter along. They are always very much oppressed, however, before they thus sacrifice their offspring to save their own; and it is pitiful to see the tender sympathetic looks they will sometimes cast at the poor little helpless creatures they have been thus deserting. From this singular mode of gestation, we can handle the *fœtus in utero*, and pull it about by the umbilical cord, as we do a kitten, from the first moment of its appearance to the very day of its birth, without causing either annoyance to it or its mother. Such is the very manner in which nearly all our Australian quadrupeds are generated and brought forth. When the young Kangaroo has attained a considerable size, it will crawl about, and creep in again to warm itself, or in case of danger approaches. The kangaroos feed early in the morning, when the dew is on the grass, which is the best time to hunt them. If there is no dog in your pack to show the game, you must keep sight of the dogs, and gallop to secure it, or else take out a little short-terrier, that will run the foot, and that you can readily keep sight of till it reaches the others, otherwise you may miss all your sport, as few of our dogs give tongue either in chase or at the death. If there is a river or pond near, Kangaroos are sure to retreat thither when hard pressed, and in this way readily baffle the natives' dogs, by the

and drowning such as may venture in beside the great length of their hind legs and tail, enabled to stand on the firm bottom, while the dogs do swim; and in this way a fight between a roo and a pack of dogs affords a most amusing sight. The Kangaroo stands gravely upright, with his ears spread out before him, wheeling round to ward off his assailants; and whenever within his reach, he pounces his paws upon his enemy, singling him suddenly under, holds him fast in this position, turning all the while around with the most stolid sort of aspect, heedless of the kicking and wriggling of his victim, whom he quickly puts under his paw. The courageous colleague does not in good time give aid, and force the Kangaroo to let his half-agonist bob above water again; the dog paddles towards shore, shaking his ears and looking most dejected, with no inclination to venture in a second time, receiving all the halloos and cheerings with which the spectators greet him.

The Kangaroo may be domesticated. "One of the Kangaroos I have seen in this country (says Mr. Ham) is domesticated, and a mischievous wag, sniffing and snuffing cautiously towards a stranger, with an innocently expressive countenance, that would never be surmised to exist under it; when, as he thinks, a sufficient introduction, he puts his paws on your shoulders, as if to caress you, and then himself suddenly upon his tail, administers such a blow with his hind legs, that it is two to one against you heels over head! This is all done in a facetious play, with a view of giving you an opportunity to examine your pockets, and see what *bon bons* he can get for him, as he munches cakes and comfits."

with epicurean *gout* ; and if the door is ajar, he will gravely take his station behind your chair at meal time, like a lackey, giving you an admonitory kick every now and then, if you fail to help him as well as yourself."

THE WOMBACH.

THIS animal is a native of New South Wales, and was discovered in the year 1798. It is about the size of a badger, a species of which it was supposed to be, from its dexterity in burrowing in the earth by means of its fore paws ; but, in its general motions, it appeared to have much of the habits and manners of a bear. It has a large head, a broad forehead, a face tapering to the nose, which is a hard gristly substance, well adapted for removing the earth when it burrows ; each jaw has two cutting teeth, long and sharp like those of a kangaroo, with a space of an inch between them and the grinders, which are strong and well set. From the structure of its teeth, it does not appear to be a carnivorous animal : its eyes are small and black ; its ears short and pointed. The paws are something like a beaver's, with which it runs so awkwardly that a man could easily overtake it. Its posteriors differ from most other animals, by falling down in a sloping direction, commencing at the hip joint, and descending to the knee joint of the hind legs : its tail is so short that it is scarcely perceivable. The general colour is a cream-brown, intermixed with black hairs. The female, like most other animals of New South Wales, is distinguished by a pouch or false belly for its young. The flesh is considered by the natives as a great luxury.

THE DUCK-BILLED PLAYTYPUS.

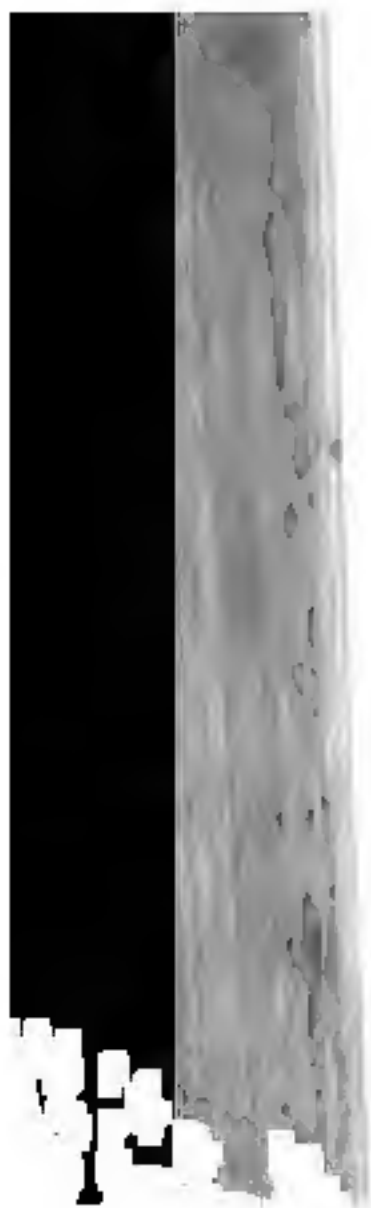
NEW HOLLAND, which, among other living curiosities, has supplied us with that *rara avis*, the black swan, is also the

country that produces this anomalous animal, one of the strangest sports of nature, as it combines the bill of a bird with the usual characteristics of a quadruped. So singular is this union, that it was at first supposed to be the trick of some person, for the purpose of imposing on collectors. When the creature was first discovered, it received the allusive name of *Ornithorhynchus Paradoxicus*; but it has since been denominated the *Platypus Anatinus*, or Duck-billed Platypus. It has a depressed body, somewhat resembling that of an otter in miniature, which is covered with a soft fur, dark brown above, and of a ferruginous white beneath. The head is flattish, and the snout so exactly resembles that of some broad-billed species of duck, that it might easily be mistaken for such. The tail

is flat, furry, and of the same colour as the body. The length of the whole animal, from the tip of the beak to that of the tail, is thirteen inches; of the beak, an inch and a half. The legs are very short, and terminate in a broad web, which on the fore feet extends to a considerable distance beyond the claws; but on the hind feet reaches no further than the roots of the claws. On the upper part of the head, on each side, a little beyond the beak, are situated two oval white spots, in the lower part of each of which the eyes are embedded.

From the general form of this animal, and particularly its flat and webbed feet, it may naturally be concluded, that it resides in watery situations; that it has the habit of digging or burrowing in the banks of rivers, or under ground; and that its food consists of aquatic plants and animals.





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